

CALIFORNIA STATE BOARD OF HEALTH MONTHLY BULLETIN



Tuberculosis patients at Barlow Sanitarium, near Los Angeles, enjoying out-of-door work. Gardening is ideal exercise for certain tuberculosis patients who may be able to engage in manual labor. All such exercise must be taken under strict medical supervision, however.

CHILDREN'S YEAR IN CALIFORNIA

JUNE, 1919

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CALIFORNIA STATE BOARD OF HEALTH

MONTHLY BULLETIN

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MONTHLY BULLETIN

CALIFORNIA STATE BOARD OF HEALTH

Devoted to the Prevention of Sickness and Death

Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California, under the Act of Congress of July 16, 1894. Acceptance for mailing at the special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 27, 1918.

Sent free, on request, to any citizen of California.

WILFRED H. KELLOGG, M.D., Secretary and Executive Officer . Editor
GUY P. JONES, Assistant to the Secretary . . . Associate Editor

Much Good Accomplished During Children's Year.

The Children's Year Campaign ended April 6, 1919, and the Children's Year Committee in California, of which Dr. Adelaide Brown, member of the State Board of Health, is chairman, has accomplished an immense amount of work in stimulating interest in child hygiene. Its efforts, however, have not been confined solely to the distribution of literature, but thousands of California children have been weighed, measured and defects corrected. Many of the baby clinics that started work during the children's year will continue indefinitely. In this issue of the bulletin there is printed Dr. Brown's report of the year's work, as a direct result of which work a bureau of child hygiene has been established, with the approval of Governor Stephens, under the California State Board of Health.

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Sixteen Typhoid Carriers Under State Supervision.

Sixteen typhoid carriers are under the supervision of the State Board of Health in California. These sixteen carriers have been responsible for upwards of two hundred cases of typhoid fever, and through their agreement not to engage in the handling of foodstuffs for consumption by other persons an untold number of typhoid cases is prevented each year. The requirements imposed upon these unfortunate persons are not extremely rigorous. They are required not to engage in the preparation of foodstuffs to be consumed by other persons; to submit specimens for bacteriological examination when required by the State Board of Health, and to keep health officers advised of their whereabouts. If all typhoid carriers could be located and placed under these simple requirements there would be a very great diminution in the number of cases of typhoid fever reported.

**Industrial Hygiene
Needed in California.**

It is time for California to take an active interest in industrial hygiene. The war stimulated industrial life in this state to hitherto unheard of proportions. Shipbuilding alone has become a big industry in California and many of the industries allied to shipbuilding have grown with equal rapidity. It is certain that many industrial diseases are acquired in industrial plants within California. Not enough attention is being paid to the sanitation and ventilation of factories. Lead poisoning, arsenic and phosphorus poisoning and other occupational diseases are receiving a certain amount of attention, but not enough energy is being expended in the prevention of industrial diseases and the promotion of sanitation in the factories and warehouses of California. This is particularly true of the dusty trades and of those occupations that are especially hazardous to workmen because of the necessary exposure to cold and dampness.

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**Dr. Sedgwick Will
Give Lecture Course.**

Dr. W. T. Sedgwick of Boston, professor of Biology in the Massachusetts Institute of Technology, will deliver a course of lectures during the summer sessions of the University of California in Los Angeles and Berkeley. Dr. Sedgwick has recently been elected into membership in the International Health Board of the Rockefeller Foundation. Students and public health workers in California will extend a hearty welcome to Dr. Sedgwick and shall anxiously look forward to his course in sanitary science and public health.

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**Failure to File Death
Certificates Is Costly.**

Numerous requests for certified copies of death certificates which were not on file with the State Board of Health recently came from a small town in the San Joaquin Valley. It was learned upon investigation that the original death certificates had not been filed by the local undertaker as required by law. He refused to accept registered letters sent to him in regard to this failure and he also refused to reply to any telegrams or letters sent to him. It became necessary, therefore, for the State District Health Officer at Fresno to swear to a complaint against this individual, who was haled into Judge Farrar's court at Merced where he pleaded guilty and was fined. Similar action will be taken against other persons who may be wilfully remiss in filing certificates.

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**Los Angeles Venereal Disease
Clinic Wins Honors.**

The United States Public Health Service has advised the California State Board of Health that the municipal clinic of Los Angeles is one of the six largest venereal disease clinics in the United States. There are very few clinics in the country where so many patients of this class receive treatment. The standard of treatment given, it may be added, is of the highest order, and venereal disease patients residing in Los Angeles are fortunate in being provided with so excellent a place where they may receive the best of care and treatment.

**Changes in Personnel
of Board's Staff.**

Dr. Lewis Michelson, who has been Director of the Bureau of Social Hygiene for the past year and a half, has resigned his position in order to take up other work. No successor has been appointed to the position, the affairs of the bureau being administered temporarily by the secretary of the board. Mr. L. E. Ross of Los Angeles has been appointed Morbidity Statistician of the State Board of Health in Sacramento. Elaborate plans for the development of the morbidity division are under way and Mr. Ross, through his wide experience in statistical and efficiency work in Los Angeles, will have a remarkable field for the development of this important branch of the board's work.

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**New Attorney
for State Board.**

John C. Macfarland, former executive secretary to Governor Stephens, has been appointed attorney to the State Board of Health. Mr. Macfarland succeeds Kemper B. Campbell, also of Los Angeles, who resigned the attorneyship because of the pressure of private business.

REPORT ON CHILDREN'S YEAR IN CALIFORNIA

SUBMITTED BY THE CHILDREN'S YEAR COMMITTEE FOR CALIFORNIA,
OF THE WOMEN'S COMMITTEE OF THE COUNCILS OF STATE AND
NATIONAL DEFENSE, ADELAIDE BROWN, M.D., CHAIRMAN.

To the California Federation of Women's Clubs.

As your organization represents California in Child Welfare Work, expressed nationally in Baby Welfare Week, held throughout our country in March for the past four years under federation auspices, it is fitting that this Report on Children's Year—a nation-wide program for improved conditions of childhood—should be dedicated to you and presented to the women of California at your yearly conference.

Your assistance by at once merging your Child Welfare Work in Children's Year, and giving your advice and energy to the National Children's Year Program, is a part of the California loyalty which has made the Children's Year a success. Your chairman of Child Welfare has made a constant contribution to our committee work. The women of California have made the program a year of effort for better childhood.

The possibilities of the future, suggested by the report, will depend on all of us to carry out.

The work of Children's Year in California was carried on by two committees—the one consisting of five members and acting as a State Executive Committee. This committee was appointed by the chairman and was concentrated in San Francisco. Its work was to plan and introduce programs, order printing, conduct parallel work with other agencies, make contributory investigations, and carry out state publicity. A weekly meeting of one to two hours and continuous service between meetings was given by its members.

The membership of this committee was:

Mrs. Alfred McLaughlin, Children's Year Chairman for San Francisco County, Chairman Baby Hygiene Committee Association of Collegiate Alumnae.

Dr. Louise B. Deal, Secretary, Chairman Child Welfare of Federation of Women's Clubs.

Mrs. Edward F. Glaser, member Northern California Women's Committee Council of Defense.

Mrs. Ludwig Frank, Publicity, member San Francisco Civic Center.

Dr. Adelaide Brown, Chairman, San Francisco.

This executive committee employed a business secretary and rented headquarters, choosing a room where a well-established Children's Health Center could be demonstrated; headquarters had over 500 visitors this year.

The business secretary was Dr. Jane H. Parkhurst, for whose sympathy with the program and technical skill great appreciation is felt by the executive committee.

The second committee was state-wide in its distribution. A chairman of Children's Year was appointed in fifty-five counties of our fifty-eight counties, and of this number active work was done by fifty-five. These Children's Year chairmen were appointed by the county chairmen of

the women's committee of the Council of Defense. They were a volunteer group, and in many cases financed their work. Certain county supervisors came to the rescue and gave sums varying from \$200 to \$1,500, as they saw the importance of the program.

To develop the work in the state the Governor and the Board of Control allowed \$5,000. The report on its expenditure will be included in this report.

The national program had three divisions:

1. The Weighing and Measuring Drive.
2. The Recreation Drive.
3. The Back-to-the-School Drive.

The Weighing and Measuring Drive took place in June and July, 1918, and April, 1919, and Chart 1 presents the statistics from 44 counties and 66,840 children. At these drives the State Committee of Children's Year furnished dietaries covering:

1. The technique of formula making, and average formulas to a year.
2. The diet from 1 to 2 years—emphasizing solid food, vegetables, reduction of meals, etc.
3. The diet from 2 to 6 years—emphasizing chewing food, regular hours, mixed diet, and place of *milk* in child's diet.

In addition, the State Board of Health Bulletin for Children's Year, June, 1918, was distributed—15,000 in the state—showing state activities in birth registration, clean milk, contagious diseases and vaccination, dentistry, tuberculosis and welfare agencies for childhood; and National Children's Bureau pamphlets, care of teeth, clean milk, etc.

In each county carrying on the drive, local agencies for the care of children, dispensaries, settlements, public health nurses, school nurses, and physicians, were all urged to help and responded generously. Local hospitals were used as headquarters, and in many cases the municipal buildings were invaded. Fraternal organizations opened their doors, and during vacation schoolhouses were used.

In connection with this drive, a careful investigation of county hospitals was made, revealing how inadequate was any possibility of correction of defects of tonsils, adenoids and teeth for poor children in most counties.

With the 3,793 county letters of guidance which were sent out from headquarters, blanks for reports, and the list of how to equip the Weighing and Measuring Center, were added. This work sent on in 594 towns in California; 591 doctors signed blanks sent back to Chicago for tabulation, and many others used the state blank for their examinations and are not included. (These figures are quoted from the Statistical Department of the Children's Bureau, Washington.)

California emphasized *the complete physical examination by a physician*, and added by a rubber stamp these points to the national card in many centers:

Eyes
Ears
Tonsils

Nutrition

Adenoids
Teeth
Posture

Forty-five counties are included in the June and April drives. In the total number in the June drive 53,462 children were examined.

46.6 per cent had physical defects.

36 per cent abnormal tonsils and adenoids.

24.7 per cent were below the height or weight of the National Scale.

5.5 per cent had defective teeth.

These percentages were slightly larger in the first 40,000.

Mothers gained three points from these Weighing and Measuring drives:

1. That the child's height and weight were points indicating his physical health.
2. That to be examined carefully a child must be stripped.
3. That defects began earlier than they could realize and must be watched for.

The community, too, was guided to see:

1. That better birth registration was needed.
2. That the public health nurse has an important place in public health.
3. That a Children's Health Center should be developed, where children could be watched and correct feeding taught.

The emphasis on better nutrition in childhood led us to recommend asking the high school domestic science teacher to start a nutrition class at the health centers as her contribution to childhood.

CHART 1. *Weighing and Measuring Drives.*

	Total exam- ined	Physical exam- inations complete	Total defects	Per cent total defects	Below height and weight	Per cent teeth defective	Tonsils and adenoids
June-July 15, 1918-----	40,863	32,167	15,261	47%	29%	6 %	31%
July 15-August 15, 1918-----	12,599	11,361	4,143	36%	13%	4.5%	26%
April, 1919* -----	13,358	12,469	8,213	65%	29%	6 %	30%
Average on year's examin- ation for state-----	66,820	55,295	27,617	49%	24%	5 %	32%

15 counties repeated drive in April.

5 counties did drive for first time.

44 counties completed the drive in the year.

The Recreation Program was staged for the summer months by the National Program, and your executive committee endeavored to secure the co-operation of the Parent-Teacher Association for this work, but no arrangement was made. Mr. Hetherington's program of physical education was supported by us, and had the epidemic not intervened we had planned to work with his department for a Play Day in April in all the counties. Our contribution to recreation is in the bulletin on "Clothes for California Children," where we emphasize correct shoes for boys and girls and playground costumes for girls. The circulation of 4,000 of the national posters of F. Luis Mora emphasize the child at play.

The third drive of Children's Year (National Program) was Back-to-the-School. As the contribution of Children's Year to the

*Final list for April drive, given on page 412, includes six counties not used for this chart.

schools we have sent a Rural School Program, with fourteen pieces of health literature, to 3,000 one-room schools in the state, including our state poster, "How Tall Are You? and What Do You Weigh?" We have emphasized, by the use of a sticker on our correspondence, the need of a scale in the school building. The retarded child is often the badly-fed child, and inquiry as to his diet, and teaching better diet at a health center, will speed him up.

The legislation on school matters was very active this year in California, and the office sent out outlines of the proposed bills and publicity throughout the winter. Back-to-the-School posters were sent to manufacturing towns, and we have just sent out 50,000 fliers—"Stay in School," "The More You Learn the More You'll Earn," and statistics of "Income of Workers at 25, Who Left School at 14 and 18." This, also, is accompanied by a poster. We have had co-operation in this work from 100 per cent of the county superintendents of schools, and our Rural School Program—consisting of suggestions for twelve five-minute talks to mothers and children—has been asked for by Nebraska, and we sent them 300 copies.

The Children's Year Seal, which was issued to be sold to help county expenses, was hurt by the epidemic, though one county on a Seal Day sold \$750 worth for the expenses of the year. We distributed the balance of the seals to the counties for local use, and wish here to thank the chairmen who bought the seals for use in their counties, thus enabling us to turn over our fund again. This seal was criticised by Kansas as an unhygienic baby costume, but we still think its beauty and sentiment outweigh this minor fault. The seal was copied by Vermont.

The national headquarters for Children's Year asked us for ninety-six copies of everything we published, and circulated them in the other states to Children's Year committees.

From Kansas we received a donation of 300 sets of seven posters on child hygiene, and through the generous donation of \$66 by the San Francisco Medical Milk Commission we were able to buy 1,000 copies of the "Well Baby Primer," published by the Children's Year Committee of Illinois, which has been sent out to chairmen of Children's Year, school superintendents, and all the health centers, baby clinics and Americanization groups we could secure the names of in the state.

The Children's Bureau has furnished us with pamphlets on infant and child care and prenatal care, and has given us fliers and posters and National Weighing and Measuring cards, and the use of the frank for sending letters and literature. This frank did not come in time for the first drive, but has been used in the counties for the literature of the spring drive for Weighing and Measuring. Without this donation, the postage item would have curtailed much of our state-wide work.

The policy of the executive committee of Children's Year has been from the first to work with, and for, agencies already established for children's work in the state, and to emphasize, through their contributions, the subject of "Childhood" this year.

We co-operated with the Children's Agency of the Board of Control at the State Fair at Sacramento; sent literature to the Ventura Fair, and to the Liberty Fair, and Riverside Fair, which the epidemic closed.

The University of California has given us the most generous co-operation. The fourth bulletin of Children's Year, of which 10,000

copies have been sent out, was composed under the direction of the Household Art Division of the Home Economics Department of the University of California, and will be a permanent help to California mothers. The subject is, "Clothes for California Children."

The University Extension Department has organized two correspondence courses on "Scientific Motherhood," and a set of lectures (University Extension) on the same subject. These were given in San Francisco and Los Angeles and were well received, and will be a permanent part of the University Extension work.

The county librarians have been excellent co-operators. They have sent out literature, kept a table of the Children's Year pamphlets in their libraries, and one has organized a group of mothers who are taking the "Scientific Motherhood" correspondence course under her leadership, and she keeps the correlated books in circulation among them. Two of the librarians have acted as county chairmen for Children's Year.

The work of the Juvenile Protective Association on "Child Labor and Education" has attracted nation-wide attention, and no week goes by without requests for Bulletin No. 2, which Children's Year brought out and circulated for them; 10,000 copies were distributed, also copies of the recently secured child labor bill, which is of the deepest interest to us.

Bulletin No. 1, on the "Mental Training of the Young Child," has reached beyond the state. One of our chairmen wrote me of this bulletin: "I would like every mother of young children to read this daily, until its ideals were a part of her routine with her children." Requests from libraries and mothers' clubs come in regularly, and it has been republished in the San Francisco News Letter and the bulletin of the California Social Agencies; 15,000 copies were distributed, issued by the California Society for Mental Hygiene in co-operation with Children's Year.

The State Library has issued a bibliography on child welfare in News Notes of California Libraries, 1919, and the county libraries were furnished corresponding shorter lists by us for their school and community branches in October, 1918.

The State Board of Education emphasized Children's Year in the Blue Bulletin of September, 1918.

The Department of Household Economics, University of California, furnished us with a dietary for acute and convalescent cases of influenza, cared for at home, which was distributed through the state early in October. A circular letter on home nursing and home isolation was also sent out by the Children's Year Committee in this emergency,

Better birth registration has been emphasized all over the state. Thirty thousand cards were circulated and sent back to Sacramento, registering the children under one year of age, and when the state records were searched it was found that the best counties showed 7 per cent unregistered, and the poorest as high as 26 per cent unregistered. The county chairmen followed up these cases of nonregistration, with the result that 1,710 more children appear on the register up to January 1, 1919, than the increase of any other preceding year.

Year	Total	Increased number	Per cent
1918 -----	55,532	3,302	6.3
1917 -----	52,230	1,592	3.1
1916 -----	50,638	1,563	3.3

The infant mortality in California varies from 14.2, or 142 per thousand births, to 6.4, or 64 per thousand births, in San Francisco, and averages 7.8 throughout the state. Below 5 per cent in Berkeley, Alameda and Palo Alto.

The terrible epidemic through which we passed, from September to February, was felt in our committee work. Your committee met great discouragements, but the belief that more than ever a child conservation program was needed kept our courage alive, and the office worked on publicity, as it could not have the fall drive. The backward counties were urged to take part in the spring Weighing and Measuring Drive, and the more active counties were helped on their development of health centers and plans for public health nurses. At the end of Children's Year we have twenty-two permanent health centers and twelve county nurses, and we believe it can truly be said, "a keener interest in the well child, be it infant, runabout, school child or adolescent." Three excellent dental clinics have been established.

The office report shows to May 10:

Letters written (dictated) -----	2,414
Circular letters (mimeographed) -----	3,793
Literature (in packages under 4 pounds) -----	5,946

The laborious work of addressing lists for letters and packages was done for us in all times of stress by the workers from the National League for Women's Service. Through the year, whenever our S. O. S. went out, these devoted workers came to help; addressing and tying packages is not spectacular work, but they did it with enthusiasm.

The executive committee has written for the California State Medical Journal, Nursing Journal of the Pacific Coast, the Board of Health Bulletin, the Club Woman, the Bulletin of the Social Agencies, and the Blue Bulletin of the Board of Education, for local papers from our publicity chairman, etc.

Your chairman has spoken, personally, in ten counties, by proxy in two other counties, under the Children's Year auspices, and has spoken on Children's Year at many meetings, refusing nothing, unless the conflict was with professional work of severe responsibility.

Two hundred and fifty sets of prenatal letters, which we borrowed from Kansas, were distributed to women applying. One hundred sets were also used at the Conference of Social Agencies.

CHART 2.

CHILDBIRTH—HISTORY CARD.

Name -----

Address ----- Birthplace -----

Age -----

Occupation: ----- Yearly Income for Family: -----

Husband -----

Other Wage Earner: ----- \$-----

----- \$-----

----- \$-----

----- \$-----

Confined: -----

----- times by Doctor ----- Got up well -----

----- times by Midwife ----- Got up well -----

----- times by Other Persons ----- Got up well -----

Number of miscarriages -----

Children living now ----- Nursed ----- Bottle fed -----

Children died (under 2 years) ----- Nursed ----- Bottle fed -----

General health of Mother -----

General health of Children ----- oldest ----- years

----- youngest ----- years

The investigation of childbirth histories—one of the sidelights on infant mortality—we hoped to make state-wide. We brought out a Childbirth History Card (Chart 2). This card was sent to state welfare nurses, and to the Metropolitan Life Insurance Nursing Department. From the latter source we have compiled from ninety-two records the following statistics; of rural records we have none to give; these are all urban—Oakland, San Jose, Berkeley:

In the 92 families the average number of children was 2.7;
 The average income was \$910.99;
 The highest (eliminating one of \$3,000 and one of \$2,400), \$1,800;
 The smallest income was \$250; four families with \$450;
 The largest family had 10; the next 7 children;
 27 families had 1 child;
 28 families had 2 children; and
 37 families over 2 children;
 Average age of the mothers was 28 years;
 The oldest mother was 46 years; and
 41 were over 28 years.

In this group, representing 252 children:

187 were nursed;
 59 were bottle-fed, whole or part;
 27 died under 2 years of age;
 10.07 per cent infant mortality.

In the 16 families where death under 2 years of age occurred the average income was \$999.50; the lowest income was \$450. This family had lost three out of four children, and the mother reported herself as delicate. Seven of the 16 families, who lost 13 of the 24 children (where income was recorded), had an income less than \$850. The infant mortality of the whole group earning less than \$850 was 16.9 per cent.

This corresponds with the reports of the Children's Bureau—the lower the income, the higher the infant mortality.

The same investigation brought out the fact that in these 92 families:

196 confinements were cared for by doctors;
54 by midwives;
2 unrecorded.

252

This shows that the midwife is a factor in the urban obstetrics, and that in the foreign population she is to be reckoned with in considering infant and maternal welfare. The Japanese, Italians and Spanish employ her, and rather than ignoring her she should be registered and trained to appreciate prenatal clinics and infant welfare stations, and urged to send her clientele to them.

Of the rural conditions in our more sparsely settled districts, no letter I have received speaks more vividly than this one from a woman who knows intimately the ranch life of Humboldt and Trinity counties. It is quoted entire:

Child Welfare in the Rural Districts.

"My work and close association with the people of the rural districts of Humboldt and Trinity counties has so forcibly impressed upon my mind the crying need of education along medical lines for the mother struggling to raise her family, that it seems imperative to try to make their condition clear.

"Humboldt County is well supplied with physicians, but many are so remote that the price and time consumed make sending for them almost prohibitive. At present there is but one physician in all Trinity County, and no district nurse in either county.

"In cases of general family illness, the mother consults 'Household Remedies,' and cares for her own as best she can; but when baby comes there is generally an old woman who acts as a midwife. In her absence, the husband officiates. I know of one mother who has had three children, with only her husband to assist her, and two of them died—one at birth and one when two days old. Nature does a great deal for the helpless, or the infant mortality would be far greater.

"The first principle—cleanliness—is not understood. Mountain homes have no conveniences; seldom is the water piped into the house; a teakettle provides the hot water, and yellow laundry soap serves all purposes. There may be plenty of *clean* clothes, but 'sterile' is an unknown term.

"Prospective mothers should have advice to help them during pregnancy; instruction for simple preparation for labor and what to have ready for baby.

"Diet is another important factor, but little understood. Many mothers do not nurse their babies, and *condensed milk* is the usual substitute, because it is so much easier to handle than fresh milk. No one ever heard of a 'formula,' and a child of twelve months is fed at the family table.

"Our rural neighbors are intelligent and anxious to learn. They eagerly listen to any suggestions, and my one regret is that my knowledge is so limited. In the past the magazines have been their only source of information on topics of home and children. Just think how restricted that is and how many questions they would like to ask!

"The families are seldom poverty stricken; the lands are very fertile; good cattle ranges, and some mining.

"The pathetic often confronts one: A man came in one morning and asked if I could go to his wife, who had a baby two weeks old, and the oldest child—a boy of seven—was dying. Although a total stranger, I went, being the only white woman within ten miles.

"After a hard ride on horseback over a steep trail I came to the little home. Here I found the mother sitting disconsolate beside the little sufferer, who was almost beyond help and who died an hour later from impaction of the bowels,

as near as I could tell. The four other children were crying, so I was left to wash the little body. We dressed him in clean overalls and a blue blouse. The father covered the face and hands with a cloth saturated in spirits of camphor—"to keep Charlie from turning black," as he said. Some kind miners made a coffin of rough lumber; and I shall never forget the sound of the saw and hammer. They lined it with buttercloth, made a little pillow of buttercloth filled with hay, and placed the tiny corpse in its final resting place.

"Next morning the funeral was held; three Indian women and two white men attended. A neighbor read the Episcopal burial service, and we sang 'Nearer, My God, to Thee.' Thus ended a young life, for want of intelligent care."

The difficulties and accomplishments in the counties are shown in the high lights of these short quotations from county chairmen. A history of each county's problems, as brought to our office, would be valuable, but impossible to include.

Imperial County.

Intolerable heat from April to November. Then influenza. And yet, a thorough birth registration test was made. Every woman's organization passed resolutions in favor of the Child Hygiene Bureau, and had talks on child welfare.

The College Club of Imperial County has taken up the subject of the Public Health Nurse for its year's work.

The Children's Year chairman, Mrs. Margaret Cummings, was formerly county attendance officer.

Plumas County.

No work in June. A new librarian came to Quincy and followed up our literature to nineteen community branch libraries and seventeen school districts. With the superintendent of schools, every district has been organized for a drive in May, when the season opens. A visit by these two women has been made to each school district, and mothers interested and committees organized.

Alpine County.

Most people in Alpine County live in Nevada; 309 is the population; but through a school teacher's co-operation we sent literature to many homes.

Trinity County.

The work starts April 30—Baby Day—and the superintendent of schools has planned a "tea," and stunts by the children, at the library in Weaverville (population 913), and the weighing and measuring will be done all day. An epidemic of measles spoiled this plan.

Riverside County.

Two hundred Mexican children, out of a total of 800 children, examined in the April drive; the first time any number of Mexican mothers have been reached. They were delighted with the Spanish diet lists. One old Spaniard, living in a remote canyon, weighed and measured his grandchild, and sent the card down, saying "The mother is dead and the father away."

Kern County.

The chairman is a Parent-Teacher Association woman. To quote from her letter, October 5, 1918: "I took the chairmanship two weeks ago; have sent out 500 letters, a synopsis of the Children's Year Program, to every teacher and local chairman; personal visits and speeches over half the county."

Influenza stopped the winter drive, but dampened her spirit in no way.

With this personal setting—a daughter of 10, one of 6, and a 5 months old baby, and no maid, but a helper two days a week, and a husband who believes in her and keeps house at night so that evenings and two days a week she had free—she has worked.

The schools and Parent-Teacher Association were her strong co-operators, and many physicians gave an afternoon a week to service for children in their offices.

The organization and publicity were thoroughly worked out.

This is only a sample county of many where the chairmen did the same detailed and enthusiastic work, and was, herself, a full-time home worker.

And just here a word must come about the great privilege the work of the Children's Year has been to your chairman. To deal by letter with unknown women, and to come in the course of a year to count them as enthusiastic fellow workers, is a wonderful human experience. The cause of childhood makes all women akin; but without the contribution each chairman made in her county, no such volume of work could have been carried on. The machinery of county work the county chairman has developed, and has brought to the task the best her county afforded in newspapers, schools, churches, libraries, and, above all, mothers and children. The "Call of the Nation" was a call to each one, and in the year of service to childhood our own development has gone on. Awakened as we are, the state and the county and town will all feel that we mean, while the great governments are making the world a better place to live in, to do our share to make better people to live in the world. Each group that has arisen to help the Children's Year Program is a potential public health group in the county.

The health centers and public health nurses will need you each year, and every year. You have been given new legislation, so that your county supervisors may pay from the treasury for public health nurses. This bill has been signed.

As county chairmen, you have worked with us for the Bureau of Child Hygiene. That bill is still unsigned, though by steady work on your part and on ours as your executive, it worked up from the Assembly to the Governor. Four states have these bureaus of child hygiene, and five have been established in Children's Year. As a centralizing force to help you in your county work, we need it; but without it, should it not be signed, there is much to be done.

1. Keep your organization of Children's Year. Co-operate with the Red Cross public health work in establishing your county public health nurse and a health center.
2. Secure better facilities in your county hospital for teeth and tonsil care for children.
3. Watch your rural schools on child hygiene work.
4. Co-operate with Americanization by keeping our health standards before foreign people.
5. *For your own inspiration*, send your names to Miss Lathrop, Children's Bureau, Washington; and join the American Child Hygiene Association—Miss Gertrude B. Knipp, Secretary, 1211 Cathedral street, Baltimore, Md.—and study their reports.
6. Support your public health nurse, by counsel and encouragement (a loan closet). She is a community asset; know her and back her.

With a child hygiene bureau your work will be strengthened. The bureau will have:

1. A library of pamphlets on new work on lines of child hygiene;
2. A loan collection of slides, charts, etc., for lectures; and
3. A staff that should be motile and go from county to county, where infant and child conditions are poor;
4. Standardization and leadership will co-ordinate the wonderful interest and energy the National Children's Year has developed;
5. Prenatal literature and child hygiene literature for distribution.

Every year in California must be a Children's Year. Healthy bodies, trained minds and no illiteracy gives every child his chance.

Financial Statement. (To April 30.)

Rent	\$123 00
Salaries—Secretary organization	1,203 87
Organizer	125 80
Traveling expenses	253 07
Telephone	87 49
Telegrams	28 25
Express	89 31
Postage	160 30
Office furniture	122 98
Printing	1,981 24
State Purchasing Department	58 25
Heating	16 95
Miscellaneous service	438 76
Mrs. Hill, special service	25 00
Miss Patterson, art work, Bulletin 4	113 75
	<hr/>
	\$4,828 82
Received from war emergency appropriation	\$5,000 00
Expenses of Children's Year	4,828 82
	<hr/>
Balance	\$171 18

The bill for a Bureau of Child Hygiene in the State Board of Health was signed by Governor Stephens May 27, 1919. This is the fourteenth Bureau of Child Hygiene established during Children's Year and the twenty-first in the United States of America.

JUNE CHILDREN'S YEAR DRIVE.

County	Total examina- tions	Total defects	Defects under 1 year	Defects 1-2 years	Defects 2-3 years	Defects 3-4 years	Defects 4-5 years	Defects 5-6 years	Below weight or height	Teeth defective	Tonsils and adenoids defective
Alameda	4,656	1,994	132	331	371	421	371	368	---	---	1,731
Butte	1,275	*	*	*	*	*	*	*	*	*	*
Colusa	826	*	*	*	*	*	*	*	*	*	*
Contra Costa	3,047	809	20	80	142	141	190	236	1,105	135	601
El Dorado	346	110	3	16	9	16	27	39	177	41	36
Fresno	2,240	837	54	91	126	189	161	216	614	108	606
Humboldt	505	229	26	35	41	41	51	35	287	43	140
Inyo	550-281	100	3	7	18	27	29	18	118	29	46
Lake	366	165	5	17	21	26	46	50	193	33	101
Los Angeles	935	*	*	*	*	*	*	*	*	*	*
Madera	850	457	29	55	63	97	89	124	396	---	344
Mendocino	498	*	*	*	*	*	*	*	*	*	*
Merced	391	21	1	3	3	4	6	4	168	6	12
Orange	3,322	†	†	†	†	†	†	†	598	---	---
Placer	565	170	8	18	35	30	41	43	263	42	95
Sacramento	3,312	1,440	126	173	213	279	326	323	629	222	509
San Benito	184	67	---	9	12	17	21	8	---	2	63
San Diego	751	581	41	79	110	109	100	142	428	48	274
San Francisco	3,808	2,842	222	378	425	525	617	675	1,616	421	1,896
San Joaquin	2,541	*	*	*	*	*	*	*	*	*	*
San Mateo	1,641	608	26	71	60	87	101	93	291	80	330
Santa Barbara	1,184	740	187	257	208	209	213	291	680	23	360
Shasta	422	388	29	78	69	78	75	59	126	54	234
Solano	982	492	40	93	92	109	98	100	244	28	453
Sonoma	1,335	1,072	54	136	190	217	222	238	156	118	687
Tuolumne	413	56	2	5	5	10	17	16	100	---	55
Ventura	367	118	28	6	14	23	23	21	150	---	54
Yolo	732	466	24	41	98	100	100	145	---	67	390
Yuba	480	258	19	30	34	72	74	29	55	19	178
Cities handled as units: L. A.	---	973	72	65	107	154	176	166	380	75	654
Los Angeles district	3,763	735	54	56	115	155	163	192	190	74	577
Pasadena	625	317	120	100	88	---	---	---	55	19	213
Richmond	813	189	12	17	42	33	42	43	90	30	148

Total number weighed and measured, 40,863.

Total number examination analyzed, 32,167.

Total number tonsils and adenoids, 10,133, or 31 per cent.

Total number defects, 15,261, or 47 per cent.

*Not segregated. Physical examination made by doctors.

†No physical examination made.

‡Under 3.

Total number tabulated height and weight records, 29,917.

Total number below height and weight, 8,731, or 29 per cent.

Total tabulated for teeth, 27,407.

Defective teeth, 1,678 or 6 per cent.

SUPPLEMENTARY REPORT ON JUNE DRIVE.

County	Total examina- tions	Total defects	Defects under 1 year	Defects 1-2 years	Defects 2-3 years	Defects 3-4 years	Defects 4-5 years	Defects 5-6 years	Below weight or height	Teeth defective	Tonsils and adenoids defective
Amador	655	245	13	20	39	53	57	63	9	24	189
Del Norte	115	85	0	18	18	20	11	18	51	16	44
Lassen	513	217	38	1	38	52	36	52	222	55	130
Napa	691	498	48	83	75	90	116	86	399	46	314
Riverside	538	*	*	*	*	*	*	*	*	*	*
San Bernardino	700	*	*	*	*	*	*	*	*	*	*
Santa Clara	1,236	376	35	30	54	68	89	100	66	51	236
Stanislaus	425	298	28	44	57	41	50	78	81	26	256
Sutter	412	56	2	7	9	8	7	23	95	8	37
†Los Angeles City	4,673	1,530	144	174	225	289	342	356	358	191	1,152
†Los Angeles County	2,641	838	81	119	127	143	178	190	200	125	625

Total number weighed and measured, 12,599.

Total number complete medical examination, defects analyzed, 11,361.

Total number defects, 4,143, or 36 per cent.

*Not segregated in report.

†Final report inclusive of preliminary.

Total number below height and weight, 1,478, or 13 per cent.

Total number abnormal teeth conditions, 542, or 4½ per cent.

Total number tonsils and adenoids, 2,983, or 26 per cent.

WEIGHING AND MEASURING DRIVE OF APRIL, 1919.

County	Total examina- tions	Total defects	Defects under 1 year	Defects 1-2 years	Defects 2-3 years	Defects 3-4 years	Defects 4-5 years	Defects 5-6 years	Below weight or height	Teeth defective	Tonsils and adenoids defective
San Joaquin	429	190	27	26	36	46	30	25	184	27	132
Santa Cruz	571	201	14	39	34	31	53	32	203	39	125
San Bernardino	802	35	1	2	7	13	2	10	5	2	22
Alameda	1,059	828	116	182	137	96	123	177	598	122	484
Mendocino	194	17	---	1	---	5	5	6	57	1	16
Solano	348	142	10	26	26	20	28	35	20	21	109
San Benito	104	*	*	*	*	*	*	*	*	*	*
Riverside	775	*	*	*	*	*	*	*	*	*	*
Tehama	347	168	23	11	1	16	13	6	106	37	117
Tulare	357	174	11	33	22	20	39	49	39	20	138
Siskiyou	492	74	13	6	2	28	10	15	26	---	53
Santa Clara	1,483	618	54	128	121	96	114	101	101	80	433
Marin	896	394	24	44	84	77	78	87	105	35	327
Mono	†	†	†	†	†	†	†	†	†	†	†
Monterey	10	†	†	†	†	†	†	†	†	†	†
Contra Costa	410	119	17	23	28	20	15	16	135	15	96
Stanislaus	562	197	24	32	43	44	22	32	3	17	186
Tuolumne	121	20	---	---	5	4	4	7	35	---	20
Kern	1,706	796	52	81	107	200	207	149	238	49	618
San Mateo*	1,863	*	*	*	*	*	*	*	*	*	*
San Diego	940	---	---	---	---	---	---	---	---	---	---
San Francisco	4,680	3,740	445	697	639	642	641	676	312	158	425
									1,819	433	2,155

Total number weighed and measured in April, 1919, 18,147.

Total number complete medical examinations (tabulated), 15,405.

Total number defects, 7,753, or 50%.

*No tabulation sent.

†Conducted drive but sent in no record.

‡Sent in by private physician. No other work done.

Below height or weight, 3,986, or 25.9%.

Defective teeth, 1,056, or 6.8%.

Defective tonsils and adenoids, 5,456, or 35.4%.

MINIMUM STANDARDS FOR PUBLIC PROTECTION OF THE HEALTH OF MOTHERS AND CHILDREN.

Maternity.

1. Maternity or prenatal centers, sufficient to provide for all cases not receiving prenatal supervision from private physicians. The work of such a center should include:
 - a. Complete physical examination by physician as early in pregnancy as possible, including examination of heart, lungs, abdomen and urine, and the taking of blood pressure; internal examination and pelvic measurements before seventh month in primipara; examination of urine every four weeks during early months; at least every two weeks after sixth month, and more frequently if indicated; Wassermann test, when indicated.
 - b. Instruction in hygiene of maternity and supervision throughout pregnancy, through at least monthly visits to a maternity center until end of sixth month, and every two weeks thereafter. Literature to be given mother to acquaint her with the principles of infant hygiene.
 - c. Employment of sufficient number of public health nurses to do home visiting and to give instructions to expectant mothers in hygiene of pregnancy and early infancy; to make visits and to care for patient in puerperium; and to see that every infant is referred to an infant welfare center.
 - d. Confinement at home by a physician or a properly trained and qualified attendant, or in a hospital.
 - e. Nursing service at home at the time of confinement and during the lying-in period, or hospital care.
 - f. Daily visits through fifth day, and to at least two other visits during second week by physician or nurse from maternity center.
 - g. At least ten days' rest in bed after a normal delivery with sufficient household service to allow mother to recuperate.
 - h. Examination by physician before discharging patient not later than six weeks after delivery.
2. Clinics, such as dental clinics and venereal clinics, for needed treatment during pregnancy.
3. Maternity hospitals, or maternity wards in general hospitals, sufficient to provide care in all complicated cases and for all women wishing hospital care; free or part-payment obstetrical care to be provided in every necessitous case at home or in a hospital.
4. All midwives to be required by law to show adequate training, and to be licensed and supervised.
5. Training and registration of household attendants to care, under the supervision of physician or public health nurse, for sickness in the home and for the home during sickness.
6. Education of general public as to problems presented by maternal and infant mortality and their solution.

Infants and Preschool Children.

1. Complete birth registration by adequate legislation requiring reporting within three days after birth.
2. Prevention of infantile blindness by making and enforcing adequate laws for treatment of eyes of every infant at birth and supervision of all positive cases.
3. Sufficient number of children's health centers to give health instruction under medical supervision for all infants and children not under care of private physician, and to give instruction in care and feeding of children to mothers, at least once a month throughout first year, and at regular intervals throughout preschool age. This center to include a nutrition clinic.
4. Children's health center to provide or to co-operate with sufficient number of public health nurses to make home visits to all infants and children of preschool age needing care—one public health nurse for average population of 2000.

Visits to the home are for the purpose of instructing the mother in:

- a. Value of breast feeding.
 - b. Technic of nursing.
 - c. Technic of bath, sleep, clothing, ventilation, and general care of the baby, with demonstrations.
 - d. Preparation and technic of artificial feeding.
 - e. Dietary essentials and selection of food for the infant and for older children.
 - f. Prevention of disease in children.
5. Dental clinics; eye, ear, nose, and throat clinics; venereal and other clinics for the treatment of defects and disease.
 6. Children's hospitals, or beds in general hospitals, or provision for medical and nursing care at home, sufficient to care for all sick infants and young children.
 7. State licensing and supervision of all child-caring institutions or homes in which infants or young children are cared for.
 8. General educational work in prevention of communicable disease and in hygiene of infants and young children, including compulsory course in child hygiene in the public schools.

School Children.

1. Proper location, construction, hygiene and sanitation of schoolhouse; adequate room space—no overcrowding.
2. Adequate playground and recreational facilities, physical training and supervised recreation.
3. Open-air classes and rest periods for pre-tubercular and certain tuberculous children, and children with grave malnutrition. Special classes for children needing some form of special instruction due to physical or mental defect.
4. Full-time school nurse for not more than 1000 children to give instruction in personal hygiene and diet, to make home visits to advise and instruct mothers in principles of hygiene, nutrition and selection of family diet, and to take children to clinics with permission of parents.

5. Adequate space and equipment for school medical work and available laboratory service.
6. Part-time physician with one full-time nurse for not more than 2000 children, or full-time physician with two full-time nurses for 4000 children for:
 - a. Complete standardized basic physical examinations once a year, with determination of weight and height at beginning and end of each school year; monthly weighing wherever possible.
 - b. Continuous health record for each child to be kept on file with other records of the pupil. This should be a continuation of the preschool health record which should accompany the child to school.
 - c. Special examinations to be made of children referred by teacher or nurse.
 - d. Supervision to control communicable disease.
 - e. Recommendation of treatment for all remediable defects, diseases, deformities, and cases of malnutrition.
 - f. Follow-up work by nurse to see that physician's recommendations are carried out.
7. Available clinics for dentistry, nose, throat, eye, ear, skin and orthopedic work; and for free vaccination for smallpox and typhoid.
8. Nutrition classes for physically subnormal children, and the maintenance of midmorning lunch or hot noonday meal when necessary.
9. Examination by psychiatrist of all atypical or retarded children.
10. Education of school child in health essentials.
11. General educational work in health and hygiene, including education of parent and teacher, to secure full co-operation in health program.

Adolescent Children.

1. Complete standardized basic physical examination by physician, including weight and height, at least once a year, and recommendation for necessary treatment to be given at children's health center or school.
2. Clinics for treatment of defect and disease.
3. Supervision and instruction to insure:
 - a. Ample diet, with special attention to growth-producing foods.
 - b. Sufficient sleep and rest and fresh air.
 - c. Adequate and suitable clothing.
 - d. Proper exercise for physical development.
 - e. Knowledge of sex hygiene and reproduction.
4. Full time education compulsory to at least 16 years of age, adapted to meet the needs and interest of the adolescent mind, with vocational guidance and training.
5. Clean, ample recreational opportunities to meet social needs.
6. Legal protection from exploitation, vice, drug habits, etc.

CHILDREN'S BUREAU,
Washington, D. C.

A SCHEMATIC METHOD FOR ESTIMATING THE HEALTH STATUS OF THE CHILD.*

By C. EDGEWORTH CARTER, M.D., Los Angeles.

Preventive medicine in children is apparently the most neglected and the most worth-while field in medicine. "Preventive medicine" is in a way a misnomer, for it includes preventive methods as applied to child health and may be entirely educational. Rarely, however, is the corrective problem in the child so simple, for our present neglect of the preschool years fosters complications which may demand the combined effort of physician, parent and educator for their ultimate mastery, if, in fact, problems tardily approached may be mastered.

The health standard of the child must first be determined, then corrective and preventive means applied towards attainment of normal conditions. Whether these methods be corrective or educative depends upon the individual problem to be met, and that in turn depends largely upon how early and how intelligently these methods are applied. For the early discovery of the child's health status, for a comparative estimate of his condition and for a practical record of corrective or defensive treatment, some comparative standard is essential. This health status chart is planned as an aid in preventing nutritional disturbances, focal infections (particularly tuberculosis and heart disease) and postural defects in children. That these three groupings constitute the entire problem of the preventive field in children is not assumed. It is with the realization of what immeasurable benefit may accrue to the developing child if he is protected from these greater misfortunes that attention is focused upon these three far-reaching causes of defective future citizens.

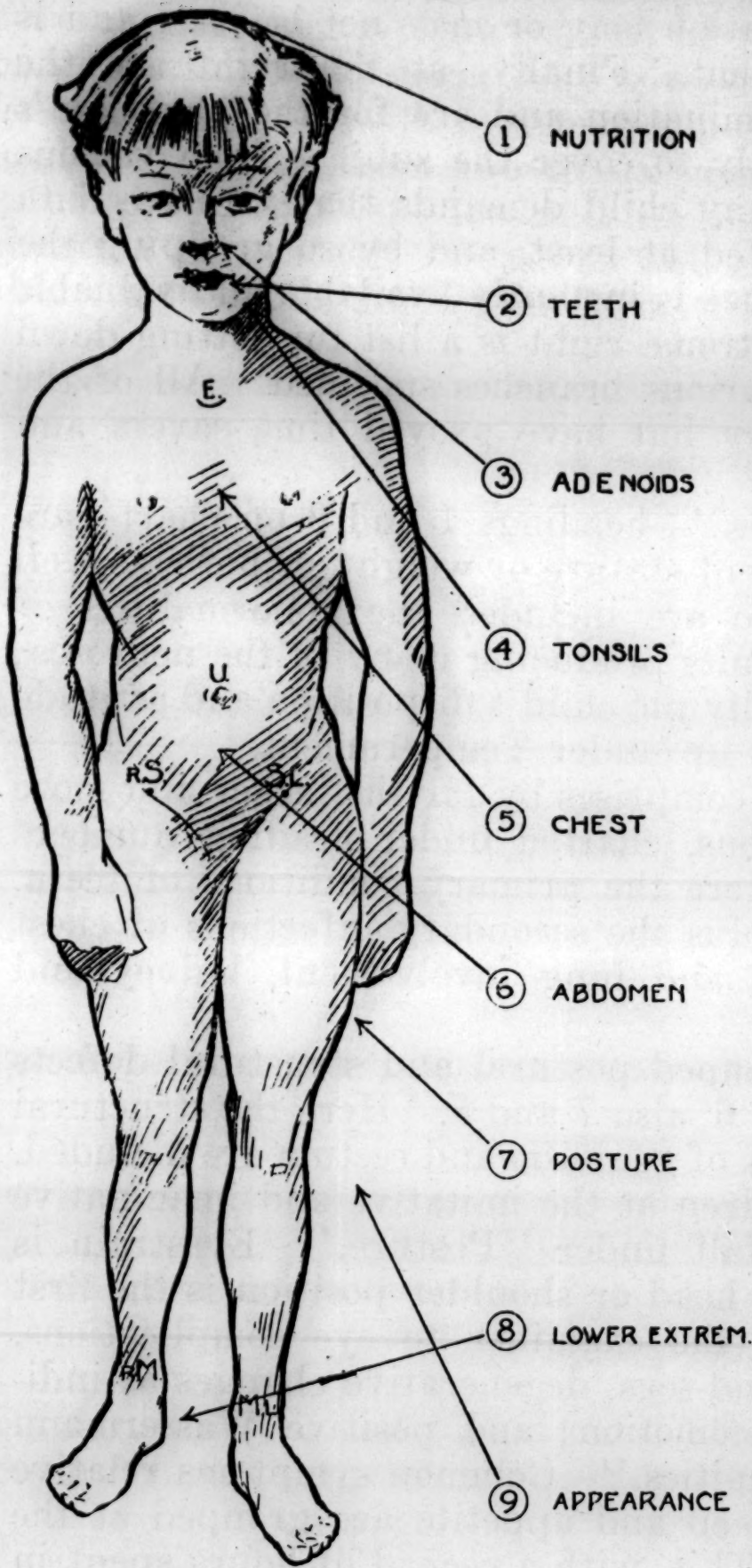
A second essential of preventive and corrective work in children consists in periodical comparisons made at varying intervals depending upon the findings at the first examination. Improvement observed is graphically shown on the health status chart.

The chart itself is arranged under ten headings, one of which—the last—is symptomatic. Each heading has five points totaling 10 per cent, or 2 per cent to each point, by means of which in summing up the ten headings 100 per cent is secured. Thus the complete physical examination covers some fifty points or "angles." On account of the printed form and arrangement this rather complete examination can be expeditiously made and recorded, but for a "checking up" less detailed—though still general and protective in its scope—the chart is so arranged that by testing the child on the first and last point under each of the ten headings only 20 points are covered instead of 50, yet these points give a fairly comprehensive summary of the health status in shorter time. Under this less detailed physical charting each point naturally stands for 5 per cent instead of 2 per cent as in the more complete picture. The general scheme of the chart is in three divisions. At the left, under "Physical examination," is a body outline by which the child (if he be far enough advanced) may see his weak points

*Presented at meeting of California State Medical Society, Santa Barbara, April 17, 1919. Printed by permission of California State Journal of Medicine.

PHYSICAL EXAMINATION, HEALTH-STATUS CHART

KEY: Open Spaces=Danger. Solid Color=Health.
N. B. For shorter exam. check first and last in each section.



E	E	U	U	RS	SL
TO	TO	TO	TO	TO	TO
RS	SL	RS	SL	RM	ML
				(TRUSLOW)	

1	Height over average.	
2	Height under average.	
3	Hygiene of clothing.	
4	Weight over average.	
5	Weight under average.	
6	Number erupted.	
7	Decayed.	
8	Malocclusion.	
9	Pathognomonic.	
10	Hygiene.	
11	Head colds.	
12	Deaf.	
13	Mentality dulled.	
14	Enuresis.	
15	Von Pirquet positive.	
16	Sore throat attacks.	
17	Septic absorption.	
18	Arthritic involvement.	
19	Nephritic involvement (Urine).	
20	Cardiac involvement (Organic).	
21	Chest circumference and expansion.	
22	Rachitic.	
23	Glands enlarged (neck—thymus) X-Ray.	
24	Heart rapid or irregular (Functional).	
25	Lungs (Sputum).	
26	Appendix tender at (McBurney's, Morris').	
27	Distended (gas).	
28	Pendulous (atonic).	
29	Hernia (structurally weak).	
30	Genitalia and Rectum (Masturb.).	
31	Head position (rigidity—eyestrain).	
32	Head circumference.	
33	Body type.	
34	Attitude standing—sitting.	
35	Bony measurements, supine (see record).	
36	Feet—valgus, varus, cavus.	
37	Leg—knock, bow, enlarged joint.	
38	Gait.	
39	Reflexes (Wassermann).	
40	Corrective treatment.	
41	Color (Haemoglobin.....%) (Blood picture).	
42	Skin—Atonic, occluded, vaccination.	
43	Temperament. Neuroses.	
44	Consequential Stigmata (Status Lymphaticus).	
45	Temperature.	
46	Stools.	
47	Sleep.	
48	Appetite Tongue.	
49	Open air dailyhrs.	
50	Complaint.	

MENTALIST
LARYNGOLOGIST
PATHOLOGIST
ROENTGENOLOGIST
SURGEON
OCULIST
ORTHOPEDIST
NEUROLOGIST
PSYCHOLOGIST

located and become interested in overcoming them. Next are parallel vertical lines subdivided so that the defects and abnormalities are identified by gaps, or breaks in continuity of color, for the ready comprehension and co-operation of the parent. Improvements noted in subsequent examinations may be filled in with different colors corresponding to the particular date at which correction of a specific defect has been secured or which improvement in abnormal conditions has been observed. This color elaboration may or may not be used and is of course a nonessential refinement. Finally, at the right are the specific points covered in the examination and are for the physician's benefit to enable him systematically to cover the subject from various angles. A careful inspection of any child demands that we have data upon the specific points enumerated at least, and by so grouping the results of our tests a ready reference is instantly available and valuable for future deductions. At the extreme right is a list for jotting down the name of consultants in the various branches specified. All of the arrangements are purely arbitrary but have proved time savers and systematizers.

Under "Nutritional disturbances"—headings 1 and 9 on chart—are the direct observations of insufficient stature or weight, or both, as well as the hygiene of clothing. Also are included the abnormalities of skin and blood with secondary results producing many of the neuroses; the temperature, stigmata and finally the child's disposition and attitude towards his environment, summed up under Temperament.

The second subjective grouping comprises by far the larger and more important group of focal infections, charted under heading numbers 2, 3, 4, 5 and first half of 6. Here the primary conditions of teeth, adenoid and tonsil are grouped, plus the secondary infections of chest and abdomen, emphasizing heart and lung involvement, kidney and intestinal tract.

Under the third subject are grouped postural and structural defects with heading numbers last half of 6, also 7 and 8. Here the structural defects of hernia and abnormalities of genitalia and rectum are included. Faulty body positions which children at the imitative and imaginative age so easily acquire naturally fall under "Posture." Eyestrain is here placed because the abnormal head or shoulder position is the first symptom attracting attention of the examiner to eye complications. The common defects of the feet and legs, degenerative changes as indicated by abnormal reflexes or locomotion; and positive Wassermann are included under "Lower extremities." Common symptoms relative to temperature, bowel activity, sleep and appetite are grouped at the bottom of the column together. This, with a record of hours spent in the open air and the child's "complaint" completes the analysis with heading number 10.

The examination as recorded in the practical every-day routine is made in sequence from 1 to 50 of the points specified, beginning with the general inspection while gaining the child's confidence. It is perhaps needless to add that the office nurse can readily learn to plot details of the examination.

This chart method brings an observable result by no means to be ignored in these days of changing creeds and shifting public opinion in the realization of a better understanding between patient, parent

and physician. One of the far-reaching results of these periodical examinations, aside from the educational value to the parent and child, is that of continued friendly relation between patient and physician. Only with such a relation are we in a position to offer our services or to bring into the problem consultation at a time when the "ounce of prevention can most avail; in fact, the understanding between the parent and the pediatricist will perhaps ultimately evolve into an agreement covering years instead of from day to day as at present in order that the physician may give directions when he ought and as he ought. Thus, with systematic, periodic examinations covering the neglected period from two to six years the health status of the child assumes a clear prospective and intelligent efforts may be made towards checking preventable disease as well as establishing normal and desirable health habits during the formative years.

REPORT OF THE BUREAU OF ADMINISTRATION.

W. H. KELLOGG, M.D., Director.

Morbidity for April, 1919, by Weeks.

	Weeks ending—					Total, April, 1919	Total, April, 1918
	April 5	April 12	April 19	April 26	May 3		
Anthrax -----							
Beri-beri -----							
Cerebrospinal meningitis --	2	1	4	3	1	11	29
Chickenpox -----	93	102	60	85	83	423	602
Cholera, Asiatic -----							
Dengue -----							
Diphtheria -----	66	49	43	33	49	240	284
Dysentery -----				1		1	5
Encephalitis, lethargic ----	3	5	1	1		10	
Erysipelas -----	3	5	9	3	4	24	53
German measles -----		4	3	2	2	11	1,255
Glanders -----							
Gonococcus infection -----	95	69	76	103	65	408	293
Hookworm -----							
Influenza -----	1,025	995	1,152	1,056	617	4,845	
Leprosy -----			1			1	2
Malaria -----	4	4	2	2	5	17	26
Measles -----	25	20	16	17	21	99	3,641
Mumps -----	42	39	37	31	36	185	1,230
Ophthalmia neonatorum ----	1		1			2	3
Paratyphoid -----	1					1	
Pellagra -----	1		1		1	3	5
Plague -----							
Pneumonia -----	42	30	43	25	26	166	331
Foliomyelitis -----		1		1		2	7
Rabies -----							
Rocky Mt. spotted fever ----				1		1	
Scarlet fever -----	49	30	52	45	60	236	285
Smallpox -----	37	40	34	29	22	162	81
Syphilis -----	95	56	91	71	60	373	227
Tetanus -----			1		1	2	5
Trachoma -----	3	2		3	1	9	9
Trichinosis -----							
Tuberculosis -----	319	306	304	363	425	1,717	567
Typhoid fever -----	10	11	15	6	15	57	66
Typhus fever -----							
Whooping cough -----	3	1	11	6		21	
Yellow fever -----							
Total -----	1,919	1,770	1,957	1,887	1,494	9,027	9,006

REPORT OF THE BUREAU OF COMMUNICABLE DISEASES FOR THE MONTH OF APRIL, 1919.

By FRANK L. KELLY, M.D., Director.

Leprosy Contracted in California.

During the month two cases of leprosy were investigated and it was found that both patients had contracted the disease in California. It was thought that these were the first persons whose infection was contracted in the state, but Dr. Howard Morrow of San Francisco also had a patient who had never been out of California. This makes a total of three cases. The two cases investigated were in boys, born in Stockton, and who had never been out of the state. Their father had been a soldier in the Philippines during the Spanish-American war. While in the islands he contracted leprosy and died in the San Joaquin County Hospital in 1912. The disease made its appearance in one of the boys about 1914 and in the other about 1915. There can be no question but what the disease was contracted from the father as the boys were never out of San Joaquin and Stanislaus counties.

Division of Biological Examinations.

*Summary of Examinations Made in the California State Hygienic Laboratory
During the Month of April, 1919.*

Condition suspected	Positive	Negative	Inconclusive	Total
Main laboratory at Berkeley:				
Anthrax -----		4		4
Diphtheria (diagnosis) -----	16	69	13	88
Diphtheria (release) -----	24	46	27	77
Diphtheria (school investigations)* -----	60	223	31	284
Gonococcus infection -----	21	8	14	43
Malaria -----		7		7
Meningitis -----				
Pneumococcus -----	2			2
Rabies -----	6	4		10
Syphilis (Wassermann test) -----	45	377	57	479
Tuberculosis (sputum) -----	10	54		64
Typhoid (excreta) -----	1	20	2	23
Typhoid (Widal test) -----	6	14	1	21
Miscellaneous -----				10
				1,112
Southern branch at Los Angeles:				
Anthrax -----		1		1
Diphtheria (diagnosis) -----	22	85	43	120
Diphtheria (release) -----	50	49	52	101
Diphtheria (school investigations)† -----		5		5
Dysentery -----		1		1
Gonococcus infection -----	44	48	3	95
Malaria -----		1		1
Tuberculosis (sputum) -----	14	33		47
Typhoid (excreta) -----		1		1
Typhoid (Widal test) -----	3	8	1	12
Miscellaneous -----				2
				386
Northern branch at Sacramento:				
Diphtheria (diagnosis) -----	6	9		15
Diphtheria (release) -----	2	2		4
Malaria -----		5		5
Tuberculosis -----	4	6		10
				34
Total -----				1,532

*Cultures from U. S. Infirmary, 173. Cultures sent by Dr. Gillhan, Sacramento, 8. Cultures sent from Stockton, 3 broken, leaving total, 31. Cultures sent by Dr. Coppedge, Alturas, 72.

†Cultures from Hemet, 5.

¹2 no growth. ²6 no growth. ³Contaminated. ⁴1 no growth. ⁵2 no growth.

Public Health Instruction.*Participation in Instruction in Public Health During April, 1919.***Main Laboratory at Berkeley:**

Bacteriological instruction outfits received -----	0
Bacteriological instruction outfits sent out -----	0
Bacteriological instruction outfits in use -----	24

Division of Preventive Therapeutics.*Pasteur Treatments for the Prevention of Rabies by the State Hygienic Laboratory During the Month of April, 1919.*

	Treatment commenced	Treatment completed
Main laboratory at Berkeley-----	1	0
Northern branch at Sacramento-----	0	0
Southern branch at Los Angeles-----	0	0
Laboratory of Sacramento Board of Health, by deputized bacteriologist -----	0	0
Laboratory of San Francisco Board of Health, by deputized bacteriologist -----	0	0
Laboratory of Los Angeles Board of Health, by deputized bacteriologist -----	0	0
Laboratory of San Diego City Board of Health, by deputized bacteriologist -----	0	0
Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist -----	0	0
Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist-----	0	0

*Vaccine Issued by the State Hygienic Laboratory During the Month of April, 1919.***Mixed Typhoid-Paratyphoid Lipo Vaccine—**

Number of physicians to whom vaccine was sent-----	6
Number of treatments sent -----	117

Ophthalmia Neonatorum Prophylactic Outfits Distributed During the Month of April, 1919.

Number of outfits, containing two ampules each, issued-----	952
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Division of Epidemiological Investigation.*Epidemiological Investigations, and Other Special Investigations, During the Month of April, 1919.***Main laboratory at Berkeley:**

- An investigation of typhoid fever in Willits.
- An investigation of leprosy in Stanislaus County.
- An investigation of leprosy in San Joaquin County.
- An investigation of smallpox in Chico.
- An investigation of smallpox in Oaks.
- An investigation of typhoid fever in Mill Valley.
- An investigation of malaria in Chico.
- An investigation of chickenpox in Red Bluff.
- An investigation of pellagra in San Joaquin County.

Division of Parasitology.

WILLIAM W. CORT, Ph.D., Consulting Helminthologist.

The examinations reported for this month are from Orientals of the San Joaquin Delta region. The percentage of infection and the variety of parasites recorded indicates the importance of actively continuing work among this element of the population.

Recently three papers have been added to the "reprint series" of the Division of Parasitology. Number two is entitled "On the Treatment of Giardiasis in Rats with Arsenobenzol," by Major Chas. A. Kofoed, Sanitary Corps, and Privates W. C. Boeck, D. E. Minnich, and J. H. Rogers, of Base Hospital 30,

United States Army. This paper is reprinted from the Journal of Medical Research, vol. 39, pp. 293-300. This work was started in the laboratories of the Division of Parasitology and completed by Major Kofoid at the department laboratory at Fort Sam Houston. The conclusion in regard to the use of arsenobenzol for the treatment is as follows:

"Spontaneous cure or continuous absence of cysts from the feces has occurred in rats under our inspection. The fact that this disappearance after treatment was immediate and coincident in practically all rats receiving the heavy dose of arsenobenzol, and that light doses are sometimes followed by reductions in the number of cysts in the cycles, seems to exclude the possibility of spontaneous cure in the case of the rats of this experiment and to justify the inference that arsenobenzol may be a specific for giardiasis."

The second paper added to the series has the title "A Mine Latrine," by W. W. Cort, and is reprinted from the Mining and Scientific Press, San Francisco, vol. 118, p. 155, Feb. 1, 1919. This paper is a description of the method of handling the disposal of feces at the Belmont-Shawmut mine and includes specifications for a practicable mine latrine and incinerator. This paper was written as part of the campaign for the eradication of hookworm from the mines of California by the improvement of methods of fecal disposal underground. The author concludes that any mine installing a sanitary system of the type found in the Belmont-Shawmut mine will be able to effectively prevent the spread of hookworm.

Number four of the series is entitled "A new Nematode Infection of Man," by Major C. A. Kofoid and Major A. W. White. This paper is reprinted from the Journal of the American Medical Association, Feb. 22, 1919, vol. 72, pp. 567-569. It contains a preliminary account of a new nematode egg found in 429 cases from about 140,000 fecal examinations made of soldiers in the Southern Department. The authors believe this to be an Oxyuris egg and assign it to the new species Oxyuris incognita.

Summary of Examinations Made in the Laboratory of Parasitology of the State Board of Health During the Month of April, 1919.

	Positive	Negative	Total
Examinations for intestinal worms:			
Miscellaneous -----		135	
Trichuris trichiura -----	34		
Hookworm -----	18		
Clonorchis sinensis -----	2		
Trichostrongylus orientalis -----	5		
Ascaris lumbricoides -----	5		
Oxyuris incognita -----	2		
Examinations for intestinal protozoa:			
Miscellaneous -----		10	
Total -----	66	145	211

REPORT OF THE BUREAU OF TUBERCULOSIS FOR APRIL, 1919.

E. L. M. TATE-THOMPSON, Director.

The great pioneer in tuberculosis work, Dr. Edward L. Trudeau, with his vision of the tuberculosis work of the future, left behind him this message: "The success which will attend attempts at the control of tuberculosis by preventive measures aimed at the infectious agent will depend upon our realization of the magnitude of the program required to this end, and on the thoroughness with which this program is applied. Desultory, scattered and unrelated measures will accomplish little. Organization, co-operation and co-ordination are the essentials of success. What we need is the thorough application of a well-thought-out program, one in which all the different agencies, such as registration, the dispensary, the visiting nurse, the open-air camp, the fresh-air school, the sanatorium and the hospital for advanced cases work together as a harmonious and effective whole and not independently of each other." Slowly our machinery for tuberculosis control is being perfected. In the beginning our efforts had to be directed from only one angle; the needs of the person with tuberculosis seemed greater than the needs of any other group for two reasons: the actual caring and curing of the patient was of first importance; second, the removing of the patient to a hospital or sanatorium was almost as important as the first. The nurse and the dispensary here play an important part in the fight against the white plague, particularly when the family from which a patient has been removed can be kept under observation.

The open-air school for the child who has been exposed to tuberculosis, or whose attendance in the closed room is irregular, and the camp for children who need care during the vacation period or a transfer from that to the Year 'Round Preventorium, very nearly completes the first lap in our trail-blazing in this state. The task ahead of us now is to do exactly what Dr. Trudeau has said, "Co-operation and co-ordination are the essentials of success." To this end meetings have been held the past month in various sections of the state with Red Cross chapters, to see how much co-operation could be secured. If the peace program of a mighty organization like the Red Cross could become a realization in California, what might we not hope for in another five years if everybody interested in any program might put their shoulder to the wheel. The chapter at Los Angeles has just completed a beautiful ten-bed building for soldiers at the Barlow Sanatorium. Last fall the director spoke before the directors of the Los Angeles chapter urging them to build their own building at the Barlow Sanatorium, and it is interesting to note what can be done without the red tape that seems necessary to unwind the moment a county or city starts to build. Here is a building completed and equipment in six months that would have taken nearly three times that long to do if a county had built it.

Various conferences have been held during the month relative to what seemed rather important, *i. e.*, the transferring of the closed indigent case of tuberculosis from the hospital to the relief home or infirmary. Nearly all the larger cities have this problem to meet, particularly among the old men who have perhaps occupied beds in the hospital for five or six years, who occupy beds badly needed by the sick, and who can not be dismissed because they are homeless, yet the expense of maintaining this group who refuse to work is far too great. The director has endeavored to have some of these patients removed to a separate department and keep the beds used by the men for the very sick.

Conferences have also been held with the Junior Red Cross to urge their co-operation with the preventorium in Marin County about to be opened by the California Tuberculosis Association.

Meetings with the supervisors were held at Madera, Merced and Modesto, when the plans for Ahwanee were approved by the various boards.

The director also spoke before the San Joaquin Valley Federation of Women's Clubs when the money was raised to continue the Indian work started last year.

In various sections of the state this year, summer camps will be maintained by the local tuberculosis association for the children attending the clinics.

The field worker, Miss Linda Mitschke, is making a survey of tuberculosis in Pasadena and Riverside.

Hospitals Inspected.

Relief Home (San Francisco).

San Leandro Infirmary (Alameda).

Weimar.

Fresno.

Springville.

Sites near Auberry (Fresno County).

REPORT OF THE BUREAU OF SOCIAL HYGIENE FOR MAY, 1919.

It is with regret that the announcement of Dr. Lewis Michelson's resignation is made. Dr. Michelson was Director of the Bureau of Social Hygiene for the past year, during which time the co-operation, long established, between the bureau, the federal officers and the local officials, was continued through his efforts. During Dr. Michelson's directorship, the scope of the work broadened, and one of the most notable accomplishments has been the improvement and enlargement of the various clinics throughout the state. The subsidy from the federal government, through the Kahn-Chamberlain bill, made this possible. The law enforcement work has been carried on vigorously with Dr. Michelson's help, and the educational propaganda was greatly stimulated. Dr. W. H. Kellogg, secretary of the State Board of Health, is, at the present time, also acting director of the bureau.

The Children's Year Committee, during the past year, has been much interested in the care of little girls infected with gonorrhœa. Through their efforts there was formed a committee of interested individuals who undertook, with the help of a subsidy from the federal funds of the State Board of Health, the opening of a convalescent home for these children. It was planned that this home should be in the country, under the supervision of a registered nurse. The children were not to be placed in hospitals because it has been discovered that they rapidly become institutionalized, and they have no facilities for recreation and outdoor play. A place has been found in Contra Costa County, under the supervision of Miss Elizabeth Post, where ten of these children will be cared for. The first unit of six is already being treated at this convalescent home. After the first few days a marked improvement was noted in the general health of the little girls. Any little girl infected with gonorrhœa, who is under twelve years of age, is eligible to be placed in this home. Arrangements for taking care of these children may be made through the Bureau of Social Hygiene. Plans have been completed whereby the children are to receive instruction from a teacher, and once a week are to have a recreational leader from San Francisco visit the home and teach them organized play and games. The place chosen has fifteen acres, eight of which are under cultivation. The water supply and the sewage disposal have been examined and found safe and sanitary. A careful record of physical improvement of the children, together with a record of the per capita cost of maintaining this institution, will be kept and the results will be worthy of study.

During the month of May approximately thirty-two lectures and addresses were given by members of the bureau—by Dr. S. A. Goldman, Dr. Vera Goldman and Dr. W. W. Cross. Dr. S. A. Goldman and Dr. Vera Goldman spent two weeks in Los Angeles giving clinical lectures to various audiences there. Dr. Cross in Fresno has very kindly consented to fill all requests for addresses in Fresno County, and has already talked in Madera, Dinuba and Fowler.

The two copies of the film "Fit to Fight," have been used seventeen times during the past month. The film "Fit to Win," has an epilogue of two reels, in addition to the first four reels of "Fit to Fight." This film is now on

the commercial circuit in California, and during the past month has been shown to over fifty thousand people in San Francisco alone. The men who have charge of this film for Mr. Isaac Silverman, of New York, have been very generous with their copies of the film, and have several times shown it to private audiences at the request of the bureau.

The last week of May Dr. W. H. Kellogg and Dr. Allen Winter left California to attend meetings in Washington, D. C. They expect to be present at the American Medical Association's annual meeting before returning.

Over 212 new cases of venereal disease were brought into various clinics, by the social service workers alone, during April. This is one indication of the necessity which has been urged by the bureau upon local communities in providing the clinics with social service workers. A large number of these workers are likewise public health nurses, and their spread of the educational measures can not be estimated. The voluntary return of many patients to the clinic, who have been interviewed by the social service workers and who have had explained to them the seriousness of their infections, is also indicative of that which may be accomplished by the co-operation of these well-trained women.

In communities too small to support a venereal disease clinic alone, it is hoped that by co-operation with the child welfare committees and the tuberculosis societies, we may establish general clinics where patients may be advised and treated.

The arsenobenzol report, which follows, will call attention to the fact that the distribution of arsenobenzol has been much increased during the past month, and that for the first time there has been a marked increase in the return of the treatment cards; more men patients have been treated than women—this likewise being a departure from the usual monthly reports. In order to answer the demands from various physicians and health officers, the bureau has decided to handle Metz neo-arsphenamine, as well as the arsenobenzol from the Dermatological Research Laboratories in Philadelphia.

Arsenobenzol Distributed by the Bureau During April, 1919.

San Francisco Health Department	130
Los Angeles Health Department	125
Los Angeles County Hospital	100
Boyle Avenue Dispensary, Los Angeles	80
Stanford University Clinic, San Francisco	59
Kern County Hospital	50
San Bernardino County Hospital	50
San Diego Venereal Clinic	50
Stockton City Clinic	33
University of California Hospital, San Francisco	30
Pasadena Dispensary	30
Santa Barbara Cottage Hospital	24
Los Angeles Medical Department, U. C., Los Angeles	24
Good Cheer Club Clinic, San Jose	24
Sacramento Isolation Hospital	20
Fresno City Clinic	9
Sonoma County Hospital	6
Oakland College of Medicine and Surgery	6
Oakdale Health Officer	1
	<hr/> 851

Treatment reports received:

129 patients received one dose	129
78 patients received two doses	156
56 patients received three doses	168
27 patients received four doses	108
7 patients received five doses	35
1 patient received seven doses	7
	<hr/> 298
Ampoules wasted	603
	<hr/> 12
	<hr/> 615

Other occupations	131
Housewives	55
Laborers	50
Students	26
No occupation	24
Prostitutes	12
	<hr/>
	298
Males	156
Females	142
	<hr/>
	298

Patients treated:

Temple Block Clinic, Los Angeles	49
Los Angeles County Hospital	42
Los Angeles Juvenile Hospital	24
San Francisco Isolation Hospital	20
San Francisco County Jails	18
San Francisco County Hospital	16
Los Feliz Hospital, Los Angeles	16
University of California Hospital, San Francisco	15
San Diego Venereal Clinic	15
San Bernardino County Hospital	13
Santa Barbara Cottage Hospital	13
Stockton City Clinic	11
Pasadena Dispensary	7
Los Angeles East Side Jail	6
Good Cheer Club Clinic, San Jose	6
Mission Valley Hospital, San Diego	5
Sacramento Isolation Hospital	5
Fresno County Hospital	4
Siskiyou County Hospital	3
Kern County Hospital	3
Sacramento County Hospital	2
Oakland College of Medicine and Surgery	2
Fairhaven Home for Girls, Sacramento	1
San Diego County Hospital	1
Visalia General Hospital	1

298

Total number of arsenobenzol ampoules distributed

8,394

Total number of treatment cards received

7,054

Total number of treatment cards distributed and not returned

1,340

8,394*Arsenobenzol Distributed by the Bureau During May, 1919.*

Los Angeles Health Department	200
Selwyn Emmett Graves Dispensary, Los Angeles	125
Stanford University Hospital, San Francisco	100
San Francisco Health Department	100
San Francisco Hospital	75
Fresno County Hospital	72
San Diego Venereal Clinic	50
Mission Valley Hospital, San Diego	50
Los Angeles County Hospital	50
San Bernardino Clinic	50
Good Cheer Club Clinic, San Jose	48
Stockton City Clinic	36
University of California Hospital, San Francisco	34
Fresno City Clinic	25
Santa Barbara Cottage Hospital	24
Pasadena Dispensary	15
Orange County Hospital	12
Oakland College of Medicine	6

1,072

Treatment reports received:

185 patients received one dose	185
125 patients received two doses	250
85 patients received three doses	255
51 patients received four doses	204
28 patients received five doses	140
9 patients received six doses	54
12 patients received seven doses	84
4 patients received eight doses	32
1 patient received nine doses	9
6 patients received ten doses	60
2 patients received eleven doses	22

508	1,295
Ampoules wasted	4

1,299

Other occupations	210
Laborers	112
Housewives	88
Students	42
No occupation	42
Prostitutes	14

508

Males 283

Females 225

508

Patients treated:

Stanford University Clinic, San Francisco	71
Los Angeles County Hospital	49
Temple Block Clinic, Los Angeles	47
Selwyn Emmett Graves Dispensary, Los Angeles	47
Kern County Hospital	40
Boyle Avenue Dispensary, Los Angeles	30
San Bernardino Dispensary	28
San Diego Venereal Clinic	23
San Francisco Hospital	22
Fresno County Hospital	20
Santa Barbara Cottage Hospital	16
Los Angeles Juvenile Hospital	15
San Francisco Health Department Clinic	15
Stockton City Clinic	14
Los Feliz Hospital, Los Angeles	12
Mission Valley Hospital, San Diego	11
Good Cheer Club, San Jose	10
Santa Clara County Hospital	7
Fresno City Clinic	7
Pasadena Dispensary	6
Oakland College of Medicine	5
College of Physicians and Surgeons, San Francisco	4
San Francisco Polyclinic	4
Orange County Hospital	2
Los Angeles East Side Jail	2
Pasadena Dispensary	1

508

Total number of arsenobenzol ampoules distributed 9,466

Total number of treatment cards received 8,353

Total number of treatment cards distributed and not returned 1,113

9,466

REPORT OF THE BUREAU OF VITAL STATISTICS.

GEORGE D. LESLIE, Director.

Births, Deaths and Marriages for March.*

State, Totals and Annual Rates. The following table shows for California as a whole, the birth, death and marriage totals for the current month of the year to date in comparison with corresponding figures for last year, as well as the annual rates per 1,000 population represented by the totals for the current month and the year to date. The rates are based on an estimated midyear population of 3,221,301 for California in 1919, the estimate having been made by the United States Census Bureau method with slight modifications.

*Birth, Death and Marriage Totals, with Annual Rate per 1,000 Population, for Current Month and Year to Date, for California: March.**

Month or period	Total		Annual rate per 1,000 population 1919
	1919	1918	
March—			
Births -----	4,636	4,567	16.9
Deaths -----	4,041	3,923	14.8
Marriages -----	2,501	2,264	9.1
January to March—			
Births -----	12,736	12,938	15.7
Deaths -----	15,508	11,212	19.5
Marriages -----	6,934	7,270	8.7

The above totals show a slight increase in births and deaths for March, 1919, in a comparison with the same month for 1918, and a considerable increase in marriages.

The three totals for the first quarter of 1919, compared with the first quarter of 1918, show a decrease in both births and marriages and an increase in deaths.

Length of Residence. The length of residence in California for the 4,041 decedents in March was as follows: Under 1 year, 297, or 7.4 per cent; 1 to 9 years, 649, or 16.1 per cent; 10 years and over, 1,881, or 46.5 per cent; life, 1,012, or 25.0 per cent; and 202, or 5.0 per cent.

For residents of the 70 cities of 2,500 population in 1910, there were 93 births and 102 deaths, which occurred in registration districts other than the city of residence.

County Marriage Totals. The counties showing the highest marriage totals for the month were as follows: Los Angeles, 629; San Francisco, 467; Alameda, 222; Sacramento, 104; Orange, 100; San Diego, 91; Santa Clara, 80; Fresno, 77; San Bernardino, 71; San Joaquin, 57; Riverside, 52; Kern, 50, Imperial, 38; and Contra Costa, 37.

County Birth and Death Totals. Exclusive of stillbirths in both cases, the birth and death totals for the month were as follows for the leading counties, arranged in decreasing order of birth registration:

County	Births	Deaths	County	Births	Deaths
Los Angeles -----	1,033	1,073	San Joaquin -----	122	124
San Francisco -----	733	680	Kern -----	95	54
Alameda -----	494	379	Orange -----	93	51
Fresno -----	242	120	Imperial -----	88	84
Sacramento -----	165	140	Tulare -----	84	52
Santa Clara -----	163	152	Sonoma -----	76	70
San Diego -----	160	169	Santa Barbara -----	70	38
San Bernardino -----	123	112	Riverside -----	63	53

*NOTE.—The present report is for the month preceding but two. This order must be followed, because of the publication of the Bulletin during the early part of the month, before the tabulation of records for the next preceding month is completed.

City Birth and Death Totals. Birth and death totals, exclusive of stillbirths, are presented similarly for the principal California cities below:

City	Births	Deaths	City	Births	Deaths
San Francisco -----	733	680	San Jose -----	63	44
Los Angeles -----	752	688	Pasadena -----	59	57
Oakland -----	321	232	Long Beach -----	58	69
Sacramento -----	120	120	Bakersfield -----	53	30
San Diego -----	115	118	Alameda -----	46	22
Fresno -----	90	47	San Bernardino -----	42	28
Berkeley -----	81	44	Riverside -----	32	25
Stockton -----	65	78	Santa Barbara -----	32	23

Causes of Death. The following table shows the classification of deaths in California for the current month, in comparison with the preceding month:

Deaths from Certain Principal Causes, with Proportion per 1,000 Total Deaths for Current and Preceding Month, for California: March.

Cause of death	Deaths, March	Proportion per 1,000	
		March	February
All causes -----	4,041	1,000.0	1,000.0
Typhoid fever -----	5	1.2	1.9
Malarial fever -----	2	0.5	-----
Smallpox -----	-----	-----	-----
Measles -----	-----	-----	-----
Scarlet fever -----	5	1.2	1.7
Whooping cough -----	1	0.2	0.5
Diphtheria and croup -----	27	6.7	4.2
Influenza -----	223	55.2	121.7
Other epidemic diseases -----	4	1.0	2.8
Tuberculosis of lungs -----	520	128.7	118.6
Tuberculosis of other organs -----	68	16.8	18.1
Syphilis and gonorrhea -----	29	7.2	7.5
Cancer -----	318	78.7	57.5
Other general diseases -----	135	33.4	22.5
Meningitis -----	17	4.2	4.4
Other diseases of nervous system -----	394	97.5	97.5
Diseases of circulatory system -----	705	174.5	170.0
Pneumonia and broncho-pneumonia -----	294	72.8	70.8
Other diseases of respiratory system -----	91	22.5	19.4
Diarrhea and enteritis, under 2 years -----	52	12.8	5.0
Diarrhea and enteritis, 2 years and over -----	15	3.7	4.7
Other diseases of digestive system -----	162	40.1	46.7
Bright's disease and nephritis -----	290	71.8	66.4
Childbirth -----	37	9.2	6.4
Diseases of early infancy -----	135	33.4	31.4
Suicide -----	71	17.6	21.7
Other violence -----	286	70.8	62.5
All other causes -----	155	38.3	36.1

In March there were 705 deaths from diseases of the circulatory system, or 17 per cent of all, and 588, or 13.6 per cent, from the various forms of tuberculosis. Other notable causes of deaths were as follows: Diseases of the nervous system, 410; diseases of the respiratory system (pneumonia, etc.), 386; violence (includes suicide, accidents, etc.), 357; cancer, 318; Bright's disease and nephritis, 290; epidemic diseases, 267; and diseases of the digestive system, 229.

The deaths from the three leading epidemic diseases (except influenza) reported for the month were distributed by counties as follows:

Diphtheria.		Scarlet fever.		Typhoid fever.	
Alameda	5	Los Angeles	2	Mendocino	1
Los Angeles	5	Nevada	1	Modoc	1
Sacramento	1	San Diego	1	Riverside	1
San Diego	2	San Francisco	1	Sacramento	1
San Francisco	11		5	Shasta	1
San Joaquin	1				5
Solano	1				
Tulare	1				
	27				

The following table shows the number of deaths from influenza for cities of 5,000 population and over, census 1910:

Los Angeles	38	Stockton	2
San Francisco	19	Napa	2
Oakland	6	Fresno	1
San Diego	6	Berkeley	1
Bakersfield	5	Long Beach	1
Alameda	3	San Bernardino	1
Sacramento	3	San Luis Obispo	1
Eureka	3	Santa Rosa	1
Santa Monica	2	Vallejo	1

Sex, Race and Nativity. The proportion of the sexes among the 4,041 decedents in March was: Male, 2,460, or 60.9 per cent, and female, 1,581, or 39.1 per cent.

The race distribution of decedents was: White, 3,777, or 93.4 per cent; Japanese, 91; Chinese, 78; Negro, 67; and Indian, 28.

The 3,777 white decedents were classified by nativity as follows: California, 933, or 24.7 per cent; other states, 1,634, or 43.3 per cent; foreign born, 1,110, or 29.4 per cent; and unknown, 100, or 2.6 per cent.

Infant Mortality. There were 353 deaths for children under 1 year of age, which were distributed by months as follows: Under 1 month, 168, or 47.6 per cent; 1 to 2 months, 62, or 17.6 per cent; 3 to 5 months, 58, or 16.4 per cent; and 6 to 11 months, 65, or 18.4 per cent.

In certain cities the deaths under 1 year were as follows: Los Angeles, 52; San Francisco, 51; and Oakland, 25.

The 353 deaths under 1 year, in comparison with the 4,636 live births reported for the month, show an infant mortality ratio of 76 per 1,000.

For the same month last year there were 331 deaths under 1 year of age, which, compared with the 4,567 live births reported, made an infant mortality ratio of 72 per 1,000 births.

REPORT OF THE BUREAU OF SANITARY ENGINEERING FOR APRIL, 1919.

By C. G. GILLESPIE, C.E., Director.

SEWAGE DISPOSAL.

Applications for Permit Filed.

Calwa, Mr. C. M. Maxwell. Application for permit to use 18-foot sewer well to serve the Maxwell Rooming House.

Permits Granted.

Calwa, Mr. C. M. Maxwell. A temporary permit, for a period of six months, to continue the use of an 18-foot sewer well, with the understanding that its depth shall not be increased beyond 18 feet, and the premises shall not be enlarged, and, further, that this sewer well shall be abandoned as soon as water wells are constructed nearer than those existing at present, and, further, that the sewer well shall be abandoned if sewerage is obtained within the six-months period.

Plans Filed—None.

Investigations, Inspections, Reports and Conferences.

Santa Monica. April 2. Additional samples collected from ocean in connection with study of contamination by city sewage. Bacterial examinations show no reduction due to electrolytic treatment of sewage.

Venice. April 2. Reinspection. Sewage collected in large tank about one-half mile back from beach and from there is pumped to ocean, discharging about 500 feet off shore.

Santa Barbara. April 15. New Reinsch-Wurl screen now in operation. Pump installed to lift screenings into wagons has not operated satisfactorily and will need to be replaced by another pump or another kind of lifting device. Grease accumulates on screen plates rapidly. The proposed removal of grease with hot water proved unsuccessful. Satisfactory grease removal is now accomplished by dripping kerosene on the cleaning brushes.

Lompoc. April 15. Reinspection of Imhoff tank showed successful clarification without nuisance.

Lompoc, Celite Products Company Camp. April 15. Inspection with reference to proposed sewage disposal consisting of Imhoff tank treatment, chlorination, and final disposal by sprinkling roads.

Casmalia. April 16. Inspection with reference to disposal of sewage from public school. Recommended building settling tank and discharging effluent into near-by stream.

Santa Maria. April 16. Reinspection of Imhoff tank and city sewer farm. Satisfactory disposal appears to be accomplished. Very little odor is created. The tank and disposal area are remote from habitations.

Matilija Hot Springs. April 17. Recommendations regarding sewage disposal not yet carried out. It is intended to install small settling tank with overflow to subsurface seepage system. Sewage at present discharges onto surface beside Ventura River.

Wheeler's Hot Springs. April 17. Recommendations for improved sewage disposal not yet carried out. Sewage now discharged into Ventura River. It is intended to construct two cesspools.

Bishop. April 28. City at present has partial sewer system and septic tank. Effluent disposed of by irrigation and by wasting into an irrigation ditch. No nuisance. Tank not cleaned for nine years. Effluent carries much suspended matter. City plans completion of sewer system in near future and installation of Imhoff tank. Recommended cleaning present tank and postponing building of Imhoff tank for present.

Redondo. April 22. About three weeks has been spent in cleaning septic tank for first time in ten years. Cost of cleaning, about \$4,500. Agitation with fire streams and pumping into ocean was method of cleaning used. Cleaning made very difficult by fact that tank is divided by numerous partition walls and covered with low concrete roof in which are very few manholes.

Hermosa. April 22. Reinspection of disposal area in center of town. Area of about two acres divided into eight beds onto which sewage is discharged alternately through hand-controlled gates. Area presents very attractive appearance. Practically no odor. Shrubs and trees on banks add to appearance. Corn planted on beds.

Hayward. April 22. Inspection of outfall sewer. The lower part of this sewer is at such a flat grade that it often becomes clogged with sand and organic matter, and bursts, causing continual expense for repairs. It was recommended that the present sewer be cleaned out and an Imhoff tank installed to clarify the sewage, and so prevent this clogging.

Livermore, Alameda County Tubercular Hospital. April 3. Inspected dosing tank to sprinkling filter, which has been out of commission due to defect in apparatus.

Benicia. April 10. Advised Mayor Stacy on disposal of a small section of town into a certain cove, but urged that bathhouse shacks now maintained there by the city be demolished and bathing prohibited because of serious sewage pollution already reaching this cove.

Gilroy. April 12. Sewage is passed through a septic tank, then discharged into a drainage way leading to meandering drain canals, finally reaching Pajaro River near Sargents. Apparently no likely meance to health, but odors at highway are noticeable.

Reedley. April 25. Found sprinkling filter plant and chlorination in excellent condition. Mr. Shaw, in charge, has observed that tree roots accumulating in outfall sewer, heretofore requiring removal at large expense every six to eight weeks, have not appeared since chlorination of the settled sprinkling filter effluent started in February. Dose used is 25 pounds per million gallons. Following application, sewage remains about 45 minutes in settling tank, then enters outfall about 400 feet long. Saving already more than pays for chlorination. Left chlorination record book for reporting chlorinator operations. Portions of filter bed beginning to choke up have been rested with good results.

Kingsburg. April 25. Found plant not in use, but could not determine what disposal was being made of sewage.

Fresno. April 26. Looked over sewer farm in connection with complaints of careless escape of sewage into private irrigation ditches.

Calwa, Maxwell Rooming House. April 26. Investigated sewer well of Maxwell Rooming House, 18 feet deep. Recommended temporary continuance, as per permit granted.

Calwa, Santa Fe R. R. Co. April 26. Plant is not being given good attention and looks neglected. Left record book for reporting chlorination operation.

Represa. April 25. Activated sludge plant operating poorly on account of quarry operations interfering with air supply to plant. Directors are about to purchase an air compressor exclusively for sewage plant.

Folsom. April 25. Imhoff tank and crude-sprinkling filter in same condition as on past inspections. No sewage getting into river. Escape of crude oil into sewers is noticeable at Imhoff tank.

WATER SUPPLIES.

Application for Permit Filed.

Bakersfield, Bakersfield Water Co. To connect new 333-foot well into system, supplying East Bakersfield.

Permits Granted.

San Gabriel, San Gabriel Valley Water Co. A permit to supply water from existing wells.

Laguna Beach, Catherine A. Brooks. A permit to supply water in Laguna Beach from two existing wells.

Los Angeles. A permit to continue to furnish and supply to its citizens and others, through its aqueduct system, water from Owens River, its tributaries and other sources.

Plans Filed—None.

Investigations, Inspections, Reports and Conferences.

San Fernando. April 6. Inspection in Pacoima Canyon, from which portion of city's supply is derived. Large numbers of people visit canyon for picnics, and some danger of contamination results. Toilet facilities are provided and the canyon is patrolled on Sundays and holidays by forest rangers.

San Gabriel Valley Water Co. April 3. Company supplies water from six pumping plants to people residing in vicinity of San Gabriel, Lamanda Park and San Marino. Inspection and analyses indicate water from the various wells is of good quality.

Lompoc. April 15. Reinspection of water supply derived from San Miguelito Creek. Stream is fed largely by springs. Is subject to some cattle contamination and slightly endangered by persons passing along a public road in the canyon.

Santa Paula. April 17. Reinspection of watershed of Santa Paula Creek, the source of city's supply. Stream receives runoff from number of ranches and from an oil field of considerable importance. A chlorinator is installed at city reservoir. This has been out of operation recently because of clogging due to impure chlorine.

Fillmore. April 19. City recently bought out water company and has substituted a deep drilled well as a source of supply for the water formerly supplied from Sespe Creek. This well should provide water of good sanitary quality.

Los Angeles. April 26 to 29. Trip into Owens Valley and reinspection of Haiwee reservoir and watershed.

Bishop. April 28. Municipally-owned supply derived from Bishop Creek. Stream subject to some muddiness at times and water is clarified by passing through filter of about 200 square feet area consisting of about 4 inches of sand supported by gravel and a wooden underdrain system. Maximum rate filtration estimated 75 million gallons per acre daily. Filter cleaned at intervals of several weeks by shoveling off accumulated silt.

Pittsburg, Black Diamond Water Co. April 1, 2, 12, 23. Conducted tests of filtration plant, calibrating apparatus and instructing operators in handling plant and making certain control tests. Inspection at end of month found pumping equipment out of order and emergency gasoline engine in use, with no disinfection or filter alum in use. Put in emergency feed lines for these chemicals and within a few hours good water was again being obtained. Experience indicates the limitation of operators, who learned the business by rule, to meet emergencies.

Antioch. April 3, 12, 23. Found plant in good condition and good results being obtained on all inspections this month.

Livermore, Arroyo Sanitarium. April 3. A new well has been drilled. Analyses indicate water to be exceptionally hard and contains considerable Glauber's salts. Present supply from Arroyo Valle Creek is highly contaminated.

Benicia, Benicia Water Company. April 10, 26. Inspected supply with a view to advising on filtration and have since been preparing sketch plans and cost estimate on two types of construction, wood and concrete, as basis for decision on most economical type. Inspection on 26th found Paddy reservoir affected by heavy growth of algæ and water grass. Advised on removal.

Vallejo. April 10. Sampled supply in connection with chlorination.

Los Banos, West San Joaquin Valley Water Co. April 25. Found automatic pumps working but operator gone and no chlorine being used. Was informed that strong tastes were noted at taps the day previous. Left record book for reporting chlorinator operation to bureau.

Merced Falls, Yosemite Valley Lumber Co. April 28. Sampled supply in connection with chlorination.

Mt. King, Mt. King Mining Co. April 28. This concern obtains drinking water from Merced River, subject to contamination by Yosemite Valley, etc. Advised chlorination and left instructions.

Byron Hot Springs. April 2. This health resort obtains supply from San Joaquin River and treats it by chemical subsidence. Heretofore, filter alum and lime have been used, both in excessive amount, and clear, safe water was obtained, but on account of stoppage of pipes with lime, latter has been cut out and alum reduced to about 250 pounds per million gallons. Clear water is obtained but treated water is still unsafe. Left instructions on disinfecting with bleaching powder.

Represa, Folsom Prison. April 25. Water chlorination plant getting good results.

Folsom, Natomas Water Co. April 25. Left record book for reporting chlorination.

Vacaville, Vacaville Light and Water Co. April 25. Trouble is being experienced, due to manganese in supply. Pipes and meters clogging badly. Advising on manganese removal plant.

Miscellaneous.

San Joaquin Valley Light and Power Co. April 26. This company is just starting extensive power development construction near Auberry. Advised on best locations of camps for ease of sewage disposal.

Merced River. April 28. Reinspection of entire river. Direct sewage inflow is practically eliminated as a result of past inspections. Two family toilets and one small hotel toilet at Bagby still empty into it. Mine wastes still empty into it, but these are beyond our jurisdiction. During stormy months privies on watershed may flush into river, but pollution load has been reduced about 1,000 to 1.

Yosemite Valley. April 29 and 30. Reinspection of sewage disposal shows effective methods of removing sewage of Sentinel Hotel and Yosemite Village from river have been taken, but Yosemite and El Capitan camps still sewer to river. Advised installation of septic tanks and cesspools to abate this pollution and also energetic action looking toward sewer system for valley, leading to high grade treatment works.

Oakland. Assisting other bureaus in sanitary survey.

SWIMMING POOLS.

Suspected epidemic of eye and throat disease at local pool investigated without definite results.

Berkeley, Y. M. C. A. The same water has been in use since the filling of the pool, January 1, this year. The counts run into the 100,000. It appears that treatment with calcium hypochlorite once daily has been careless and insufficient. The chlorine dose was increased from 0.3 p.p.m. to 0.5 p.p.m., which reduces, temporarily, the counts from thousands to below 10. Repeated samples indicate that one treatment a day is not sufficient protection.

Los Angeles, Boy Scout Camp. April 23. Algæ growths caused water in pool to become very turbid. Increased copper treatment and longer filtration were advised.

LABORATORY REPORT.

The following is a summary of the work done by the laboratories of the Bureau of Sanitary Engineering for April, 1919:

Los Angeles Office:

Bacteriological examinations of water-----	90
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Berkeley Office:

Bacteriological examinations of water-----	387
Bacteriological examinations of sewage-----	12
Chemical examinations of water (partial)-----	401
Sanitary chemical examinations of water-----	10
Total samples submitted-----	411

REPORT OF THE BUREAU OF FOODS AND DRUGS FOR APRIL, 1919.

E. J. LEA, M.S., Director.

A total of 350 samples were received at the laboratory during the month. The 139 official samples collected by the inspectors consisted of beverages, cake, chocolate, condiments, confectionery, cream, extracts, fish, fruit, gelatine, ice cream, jelly, liquors, meats, milk, nuts, oil, pastes, pastry, rice, sugar, syrup, vegetables and vinegar, among the foods, and acid aceto-salicylic, camphorated oil, paregoric and tincture of iodine among the drugs.

Sixty-one unofficial samples were collected, consisting of cheese, condiments, egg yellow color, fish, fruit, ice cream, oils, liquors, meats, milk, nuts, oysters, preserves, vegetables, solution for dipping eggs.

One hundred forty-eight samples from state institutions were received during the month, consisting of ammonia, baking powder, baking soda, barley, caustic soda, cheese, chicory, cocoa, coffee, coffee substitute, condiments, cornmeal, cornstarch, extracts, farina, chicken feed, fish, flour, fruit, hominy, jelly, milk, oats, oils, oleomargarine, oysters, rice, salt, spaghetti, spices, sugar, syrup, tapioca, tea, tobacco, vegetables, vinegar, wheat and Zerolene.

CASES REFERRED TO DISTRICT ATTORNEYS.

The following cases were referred by the State Board of Health at the April meeting:

Fresno—Borello Brothers, cherry syrup, strawberry syrup and lemon syrup; Green's Free Market, chopped meat; Patterson Pharmacy, camphorated oil; S. Tripatis, orange syrup; *White Packing Company, sausages; Witts Market, pork sausage and chopped meat.

Long Beach—Curtis Corporation, "Curtisola"; R. H. Stollar, fancy syrup.

Los Angeles—Joseph Bump, vanilla extract; R. C. Kerntopf, camphorated oil; Webber Chemical Company, syrup.

Oakland—American Grocery Co., chocolate; N. Forcellino, prunes and tomato paste; Jersey Milk, Cream and Butter Co., milk; McNamee & Nylander, eggs; Palace Bakery, eggs; G. J. W. Stark, evaporated milk; Superior Ice Cream Co., ice cream; White Lunch, milk.

Napa—F. C. Lundy, prunes.

San Francisco—G. B. Amigo & Co., oranges; Apple Blossom, butter and walnuts; T. A. Burns & Co., oranges; N. Botto & Co., oranges; Campodonico, Lemos & Hanscom, oranges; A. Carbonari, tomato conserva; Half Moon Fruit and Produce Co., oranges; *Hunt, Hatch & Co., oranges; *Wm. Hunt, gin; Quaker Drug Store, camphorated oil; Parducci & Menconi, tomato conserva; Sam Meister, oranges; Ohaski Importing Co., boiled crab meat; *Reed Pickle Works, tomato catsup; S. H. Tyler & Son, ground chili; Washington Market, "Bake-ko"; Wellbanks & Co., oranges.

San Jose—Wolff Drug Company, camphorated oil.

Santa Rosa—G. M. Luttrell, sweet spirits of nitre and quinine capsules; St. Rose Drug Store, extract of lemon and extract of orange.

Sonora—J. N. Lyon, whiskey; Verdi Saloon, gin.

Vallejo—Acme Grill, cream; D. Dante, tomato paste; George D. Gray, pepper, chocolate and prunes.

Venice—*Bay City Market, chopped meat; *John Schwab, chopped meat.

CONVICTIONS UNDER FOOD AND DRUGS ACTS REPORTED DURING APRIL, 1919.

Grass Valley—F. B. Sparks, rancid walnut meats, fined \$10. *Oakland*—S. Rosenthal, canned crab meat, fined \$10. *Pittsburg*—H. Scampini, Fernet Branca, fined \$15; vermouth, guilty, sentence suspended. *San Francisco*—N. Boto & Co., breaking quarantine on frozen oranges, guilty, O.R. sixty days; Golden West Bakery, stale eggs, fined \$10; L. Mendelson, decomposed eggs, fined \$10; J. Milonas, rain-damaged prunes, guilty, O.R. six months; P. Muzio, adulterated tomato paste, fined \$10; D. H. Porter, fermented prunes, guilty, O.R. thirty days; L. Queetnick, decomposed canned olives, guilty, O.R. six months; H. Wreden & Co., rain-damaged prunes, guilty, O.R. thirty days. *San Jose*—Bisceglia Brothers, adulterated tomato puree and breaking the quarantine placed on same, fined \$300; N. B. Morgin, breaking quarantine placed on fermented prunes, fined \$25; L. Richards, fermented prunes, fined \$25.

ARTICLES OF FOOD CONDEMNED.

Berkeley—Walnut meats, rancid, three sacks. *Los Angeles*—Canned pork and beans, decomposed, 3,750 pounds; grayfish, decomposed, 156 cases; mayonnaise salad dressing, decomposed, 1,087 pounds. *Pittsburg*—Oranges, frozen, 45 boxes. *Placentia*—Tomato paste, decomposed, 4,950 pounds. *San Francisco*—Boiled crab meat, decomposed, 1,369 tins; candy, dirty, 2,000 pounds; Fava beans, weevils, 1,700 pounds; incubator eggs, decomposed, 240 dozen; oranges, frozen, 1,112 boxes; peaches, dried, wormy, 150 pounds; peaches, canned, fermented, 4,000 tins; peanuts, rancid, 50 pounds.

*Referred on two counts.

REPORT ON MATERIAL IN COLD STORAGE, APRIL 1, 1919.

Apple butter-----	350 lbs.	Mutton-----	1,264 lbs.
Beer-----	1,135 bbls.	Pork-----	306,987 lbs.
Butter-----	27,226 lbs.	Sausage-----	6 cases
Candy-----	3,104 lbs.	Veal-----	35 lbs.
Catsup-----	1,500 lbs.	Meat, frozen.	
Cereals-----	1,759 lbs.	Beef-----	3,600 lbs.
Cheese-----	808,597 lbs.	Miscellaneous-----	259,422 lbs.
Cider-----	79,440 lbs.	Pickled-----	70,050 lbs.
Cocoanut, shredded-----	1 bbl.	Pork-----	3,100 lbs.
Cream-----	5 cans	Milk, evaporated-----	35,790 lbs.
Eggs.		Mincemeat-----	2 bbls.
Fresh-----	1,993,116 doz.	Near beer-----	15 bbls.
Frozen-----	97,023 lbs.	Nuts-----	984,850 lbs.
Fish.		Nut meats-----	173,724 lbs.
Fresh-----	272,512 lbs.	Olive oil-----	18,560 lbs.
Pickled-----	166,500 lbs.	Oleomargarine-----	37,300 lbs.
Salt-----	61,985 lbs.	Olives-----	1,800 lbs.
Shell-----	20,230 lbs.	Pickles-----	2 bbls.
Smoked-----	652,037 lbs.	Plants-----	8,718 lbs.
Fruit, dried.		Poultry.	
Figs-----	850 lbs.	Broilers-----	5,689 lbs.
Miscellaneous-----	284,184 lbs.	Ducks-----	1 pkg.
Peaches-----	2,843 lbs.	Fowl-----	52,914 lbs.
Prunes-----	1,500 lbs.	Miscellaneous-----	1,770,357 lbs.
Raisins-----	750 lbs.	Roasters-----	8,506 lbs.
Fruit, fresh.		Turkeys-----	55,820 lbs.
Apples-----	7,957,409 lbs.	Rabbits-----	2 pkgs.
Berries, miscellaneous-----	48,088 lbs.	Syrup-----	7,240 lbs.
Cranberries-----	1,900 lbs.	Trees-----	1,480 lbs.
Grapefruit-----	150 lbs.	Vegetables.	
Grapes-----	6 drms.	Asparagus-----	2,400 lbs.
Miscellaneous-----	2,427,897 lbs.	Beans-----	6,100 lbs.
Oranges-----	28,723 lbs.	Cauliflower-----	660 lbs.
Pears-----	52,790 lbs.	Celery-----	57,710 lbs.
Persimmons-----	9 boxes	Horseradish-----	166,103 lbs.
Plums-----	98 boxes	Miscellaneous-----	5,695 lbs.
Strawberries-----	4,396 lbs.	Mushrooms-----	8,439 lbs.
Fruit juice and pulp-----	187,875 lbs.	Onions-----	4,566,793 lbs.
Furs-----	198 lbs.	Peppers-----	75,468 lbs.
Lard-----	252,715 lbs.	Potatoes, Irish-----	23,773,745 lbs.
Leaves-----	5,978 lbs.	Potatoes, sweet-----	3,361 lbs.
Meat, fresh.		Sauerkraut-----	5 bbls.
Beef-----	24,151 lbs.	Tomatoes-----	700 lbs.
Buffalo-----	500 lbs.	Wine-----	24 bbls.
Miscellaneous-----	805,048 lbs.		

The following food inspection decisions have been received from the United States Department of Agriculture:

FOOD INSPECTION DECISION 178.

Milk and Cream.

The following definitions and standards for milk and cream were adopted by the Joint Committee on Definitions and Standards July 30, 1917, and were approved by the Association of American Dairy, Food and Drug Officials August 3, 1917, and by the Association of Official Agricultural Chemists November 21, 1917:

1. *Milk* is the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and five days after calving, or such longer period as may be necessary to render the milk practically colostrum free.

2. *Skimmed milk* is milk from which substantially all of the milk fat has been removed.

3. *Cream, sweet cream*, is that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force. It is fresh and clean. It contains not less than eighteen per cent (18%) of milk fat and not more than two-tenths per cent (0.2%) of acid-reacting substances calculated in terms of lactic acid.

4. *Whipping cream* is cream which contains not less than thirty per cent (30%) of milk fat.

5. *Pasteurized milk* is milk that has been subjected to a temperature not lower than 145 degrees Fahrenheit for not less than thirty minutes. Unless it is bottled hot, it is promptly cooled to 50 degrees Fahrenheit or lower.

6. *Buttermilk* is the product that remains when fat is removed from milk or cream, sweet or sour, in the process of churning. It contains not less than eight and five-tenths per cent (8.5%) of milk solids, not fat.

7. *Homogenized milk or homogenized cream* is milk or cream that has been mechanically treated in such a manner as to alter its physical properties, with particular reference to the condition and appearance of the fat globules.

FOOD INSPECTION DECISION 179.

Amending Regulation 29, Which Relates to Marking the Quantity of Food in Package Form.

Paragraph (j) of regulation 29 of the Rules and Regulations for the Enforcement of the Food and Drugs Act is hereby amended by striking out the words "two avoirdupois ounces" and inserting in lieu thereof "one-half avoirdupois ounce," so that paragraph (j) as amended shall read as follows:

(j) A package containing one-half avoirdupois ounce of food or less is "small" and shall be exempt from marking in terms of weight.

REPORT OF THE BUREAU OF REGISTRATION OF NURSES.

ANNA C. JAMMÉ, R.N., Director.

Due to the war emergency it became necessary in April, 1918, to make changes in educational requirements for entrance to schools of nursing in order to facilitate the enrollment of a larger number of students and to hasten the output of nurses by allowing credit for work pertaining to nursing, which had been taken before entrance to a school of nursing. The acute emergency has now passed, and it has been found desirable that there should be a return to a more definite basis of educational entrance requirement. Therefore, at the last meeting of the board, held on May 3, the following resolutions were passed, which are now effective:

1. That the entrance examination for applicants below high school grade shall not be continued.
2. That a proper equivalent for high school shall be determined.
3. That credit for the required science subjects taken in a regular high school course shall not exceed three months.
4. That credit for science subjects taken in an institution of higher grade than a high school shall not exceed twelve months.
5. That credit shall be given only for such subjects as relate to the study of nursing.
6. That applicants desiring credit on the general course in a school for nurses, must have severed their connection with the school in which they have obtained this training before consideration of credit will be taken up by the bureau.
7. That all applicants must have an educational certification from the bureau before they are admitted to a school of nursing.
8. That records of students must be kept in proper form and available for inspection at any time. When a student severs her connection with the school, whether by honorable or dishonorable discharge, resignation, or by graduation, a copy of this record must be sent to the Bureau of Registration of Nurses, Sacramento, and a copy given to the student if she requests it.

Inspections.

During the month of April inspection was made of the following hospitals, with which schools of nursing are connected:

St. Joseph's, Stockton.
San Joaquin County, French Camp.
Dameron, Stockton.
Emanuel, Turlock.
Evans, Modesto.

St. Joseph's, San Diego.
Agnew, San Diego.
Paradise Valley, National City.
Santa Ana, Santa Ana.
Fullerton, Fullerton.

While in San Diego the inspector visited the high school, where classes in biology and physiology for students in schools of nursing are being carried on in the day school. A conference was also held with the night principal and instructor of nutrition and cookery to determine what should be covered during the course which was being given in the evening school.

The inspections show an improvement and return to more normal conditions following the disturbance consequent upon the influenza epidemic. Every hospital is full to capacity and there appears to be great necessity for enlarged facilities in all directions for the increased number of patients. In the schools there is a decided improvement in classrooms and equipment for teaching, also a growing feeling that provision must be made for the recreation of the students. St. Joseph's Hospital, in San Diego, stands out prominently in its efforts to provide modern operating rooms and equipment. A new building has recently been completed, including five operating rooms, X-ray rooms, and laboratories. In the new building there is a large room which serves the double purpose of class and recreation room. The former operating rooms have been thoroughly remodeled for obstetrical work. With the improvement in building and equipment are found increased facilities for the students' recreation. Fine tennis courts are being built at San Diego County Hospital and at St. Joseph's, and ground is being prepared for croquet and volley ball at the county hospital.

The Stockton, St. Joseph's Hospital, Dameron, and San Joaquin County, send their students to the high school for their science work. The instruction here is particularly well given, and great interest is shown by high school instructors. Special transportation is arranged for conveying the students from the hospitals to the high school.

The Trend of the Times.

Following on the great stimulus given to nursing during the past two years there appears to be a reaction now taking place which is not surprising. This reaction is shown in a lessened number of applicants for schools of nursing and in the depleted waiting lists of our more important schools.

During the war the spirit of work, sacrifice, and service was paramount—in fact, the thing of the day. The war nurse, the Red Cross nurse, was a spectacular figure in the public mind and was something to strive for. The effort to supply nurses for overseas was good copy for newspapers and the enrollment of a large student body through the efforts of the Student Nurse Reserve carried on by the Council of National Defense, gave wide publicity to nursing and nursing institutions. The Vassar Camp was a wonderful demonstration of the spirit of the day, likewise the Army School of Nursing, with its many thousands of applicants and two thousand recruits. The Red Cross home nursing classes also created great stimulus toward nursing, and publicity by means of pamphlets and magazine articles contributed to create an unprecedented stimulation in nursing.

With the cessation of war the spectacular interest in nurses and nursing ceased, and a decided let-down is apparent in the spirit of work, sacrifice and service. During the war many attractive occupations were opened to young women which required little or no special preparation, and good salary; short-term courses were instituted offering quick remuneration, and consequently the training school does not attract, as it means more or less protracted study and training.

The Committee of Nursing of the General Medical Board of the Council of National Defense, has published the report of its work, which ceased on January 1, and this report has been sent to every hospital superintendent in the United States. It is most illuminating and very well worth reading. In the letter transmitting the report, which is found on page 21, there is very clearly embodied some of the prominent reasons why it is constantly

impossible to recruit a sufficient number of students in our schools of nursing in this country of proper qualification for the work.

The Vassar Camp experiment was important for many reasons. One, that it drew to the attention of men, such as Dean Herbert E. Mills, the actual conditions existing in schools of nursing, especially where these four hundred college students entered who had taken the Vassar intensive three months course. In the "Modern Hospital" of the April issue appears a beautiful tribute, from the dean, of the work these students performed in the hospitals, as also a very well applied criticism as to the conditions under which they worked and were taught.

From the criticism that has appeared in these articles, we are in this state happily removed from that of long hours of duty for students, but we are not free from the criticism of "haphazard" instruction as applied by Dean Mills in writing of schools of nursing in general. In this respect there is here much to be desired, which can be remedied were we in position now to answer the great demand for instructors, and furthermore, when hospitals will offer better salaries for these instructors. When we say "instructors" we mean not only those who are officially the instructors in a school, but also the head nurses and operating room nurses. They, also, are a highly important part of the faculty of the school, and to them belongs the actual teaching of daily and hourly routine at the bedside of the patient, and the inspiration which should emanate from them to the student. Not the least important is that of the night superintendent, and yet so frequently little emphasis is given to this important officer or the value she may be as a teacher.

We must build up these important positions which mean much to the hospital and the school, and adequate salaries should be given, that nurses will be willing to spend time in obtaining special preparation for this work.

In this state the living conditions for students are on the whole very good; comfortable and attractive students' residences are found with very few exceptions, and students may be lodged while in training as comfortably as in their own home. The facilities for class instruction are steadily improving; there are, as a rule, good classrooms, not as many good demonstration rooms as we would like to see, and fairly good laboratory facilities. There is need for building up a better system of records and greater care in keeping training school data. Records are frequently poorly kept and even destroyed, which places the student at a great disadvantage when these records are asked for.

What our schools need now is the strong backing of those who are in control of our hospitals, our boards of supervisors, our boards of trustees, our medical and lay superintendents, and we need good constructive and not destructive criticism, as well as encouragement and not discouragement for our young women who want to be and who are qualified to become good nurses.

A New Bulletin.

The bureau has published a new bulletin which is intended for high school girls, and will give practical information on nursing and schools of nursing, and will contain a list of the accredited schools of this state. It will be sent to all the high schools and to anyone who wants it and asks for it. We will be glad to send a number to any of the readers of the Journal who may wish to distribute them in their community. It will be useful to alumnae associations in enabling them to recruit students for their schools, and also other associations in the state.

The Next Examination for Certificate as Registered Nurse.

The examination will be held in San Francisco, Sacramento and Los Angeles on June 18 and 19. Completed applications must be received by the bureau not later than June 10. Applicants should now ask for the application blanks and any information desired concerning the examination.

LIST OF COUNTY AND CITY HEALTH OFFICERS.

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Alameda.....Dr. A. Hieronymus
Albany.....Dr. J. F. Diddle
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Emeryville.....Dr. A. T. Drennan
Hayward.....Dr. F. W. Browning
Livermore.....Dr. J. K. Warner
Oakland.....Dr. Daniel Crosby
Piedmont.....Dr. Benj. T. Mouser
Pleasanton.....Dr. J. Hal Cope
San Leandro.....Dr. Luther Michael

Alpine County—

Markleeville

Amador County—

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Jackson.....H. E. Kay
Plymouth.....W. J. Ninnis
Sutter Creek.....T. W. Trudgen

Butte County—

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Biggs.....Sarah J. Hiett
Chico.....W. H. Marshall
Gridley.....Dr. L. Q. Thompson
Oroville.....Dr. W. F. Gates

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Angels Camp.....Dr. E. W. Weirich

Colusa County—

Dr. G. W. Desrosier.....Colusa
Colusa.....Dr. G. W. Desrosier

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Concord.....Dr. F. F. Neff
El Cerrito.....Dr. J. T. Breneman
Hercules.....Dr. C. T. Wetmore
Martinez.....Dr. Edwin Merrithew
Pinole.....Dr. M. L. Fernandez
Pittsburg.....Dr. H. E. Peters
Richmond.....Dr. Chas. R. Blake
Walnut Creek.....Dr. C. R. Leech

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Dr. E. M. Fine.....Crescent City
Crescent City.....Dr. E. M. Fine

El Dorado County—

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Placerville.....P. J. Hall

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Clovis.....Dr. M. S. McMurtry
Coalinga.....Dr. C. W. Hutchinson
Firebaugh.....E. C. McWayne
Fowler.....Chas. Chapman
Fresno.....Dr. Geo. H. Bland
Kingsburg.....Dr. T. D. Smith
Reedley.....Dr. Chas. H. Traber
Sanger.....E. G. Thompson
Selma.....Dr. Fred H. Williams

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Orland.....Dr. S. Igllick
Willows.....Dr. W. H. Walker

Humboldt County—

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Arcata.....Dr. G. W. McKinnon
Blue Lake.....Dr. Earl W. Hill
Eureka.....Dr. L. A. Wing
Ferndale.....Dr. J. J. Myers
Fortuna.....Dr. Orville Rockwell

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Brawley.....Dr. Eugene Le Baron
Calexico.....Dr. M. L. Parcels
El Centro.....Dr. W. F. Peterson
Holtville.....C. L. Gillett
Imperial.....R. M. Thompson

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Bishop.....Dr. D. M. Nicoll

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Bakersfield.....Dr. C. W. Kellogg
Delano.....Dr. J. R. Hicks
Maricopa.....Dr. H. N. Taylor
McKittrick.....Dr. Robert McLaughlin
Taft.....Dr. M. W. Pascoe
Tehachapi.....Dr. E. F. O'Reilly

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Corcoran.....Dr. L. O. Henrich
Hanford.....Dr. A. S. Torrens
Lemoore.....Dr. Blake Franklin

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Lakeport.....P. H. Millberry

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Susanville.....Mrs. Ralph Hart

Los Angeles County—

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Arcadia.....F. W. Treen
Avalon.....Dr. J. J. Peckham
Azusa.....Mrs. Nettie Dingman
Beverly Hills.....Dr. J. R. Perry
Burbank.....Dr. E. H. Thompson
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Compton.....A. C. Covney
Covina.....Dr. J. A. Lepley
Culver City.....Dr. W. F. Mortensen
Eagle Rock.....Dr. C. H. Phinney
El Monte.....Dr. B. B. Bolton
El Segundo.....Dr. R. S. Anthony
Glendale.....Dr. R. E. Chase
Glendora.....Dr. J. L. Pomeroy
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Huntington Park.....Dr. Thos. J. DeVaughn
Inglewood.....Dr. C. M. Graham
La Verne.....Dr. J. E. Hubble
Long Beach.....Dr. R. L. Taylor
Los Angeles.....Dr. L. M. Powers
Manhattan Beach.....Llewellyn Price
Monrovia.....Dr. Chas. D. Gaylord
Monterey Park.....Dr. N. J. Brown
Pasadena.....Dr. J. S. Hibben
Pomona.....Dr. N. J. Rice
Redondo Beach.....Dr. A. C. Hendree
San Fernando.....Dr. John M. Griffiths
San Gabriel.....Dr. Wm. W. Worster
San Marino.....Dr. W. LeMoyne Wills
Santa Monica.....Dr. F. J. Wagner
Sierra Madre.....Dr. R. H. Mackerras
South Pasadena.....Dr. C. F. Metcalf
Venice.....Dr. I. L. Magee
Vernon.....Dr. L. J. Williams
Watts.....Dr. J. L. Lamb
Whittier.....J. C. Warner

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Madera.....Dr. C. A. Robinson

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Belvedere.....Dr. Florence Scott
Corte Madera.....A. F. Roberts
Larkspur.....Dr. L. Newman
Mill Valley.....Theodore B. Thorndike
Ross.....Dr. Thos. U. Smith
San Anselmo.....Dr. O. W. Jones
San Rafael.....Dr. W. F. Jones
Sausalito.....Dr. Allan H. Vance

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Dr. E. S. Scott.....Mariposa

Mendocino County—

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Fort Bragg.....Dr. Harper Peddicord
Point Arena.....M. S. Scott
Potter Valley.....W. T. Eddle
Ukiah.....Dr. Lew K. Van Allen
Willits.....Dr. F. G. Gunn

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Gustine.....Dr. C. E. Stagner
Los Banos.....Dr. R. Jadarola
Merced.....Dr. C. H. Castle

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Alturas.....Dr. John Stile

Mono County—

Bridgeport

Monterey County—

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Carmel-by-the-Sea.....W. T. Kibler
King City.....Mrs. R. H. Brunette
Monterey.....Peter Sella
Pacific Grove.....James P. Evans
Salinas.....W. E. Hallock

Napa County—

Dr. O. T. Schulze.....Napa
Calistoga.....Harry Von Arx
Napa.....E. L. Geiger
St. Helena.....Wynn M. Powers

Nevada County—

Dr. Carl P. Jones.....Grass Valley
Grass Valley.....Dr. Carl P. Jones
Nevada City.....Geo. H. Calanan

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Brea	Dr. O. S. Parrett
Fullerton	Dr. J. H. Lang
Huntington Beach	Dr. G. A. Shank
Newport Beach	J. A. Porter
Orange	Dr. J. C. Crawford
Santa Ana	Dr. J. I. Clark
Seal Beach	Dr. J. Park Dougall
Stanton	

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Dr. G. W. Davis	Lincoln
Auburn	Dr. Theodore Snyppe
Colfax	
Lincoln	F. R. Elder
Rocklin	John H. Gregory
Roseville	G. W. Lohse

Plumas County—

Dr. J. R. Laswell	Quincy
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Corona	Dr. W. S. Davis
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Sacramento	Dr. W. J. Hanna

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Hollister	Dr. J. M. O'Donnell
San Juan	W. S. Hayden

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Upland	E. R. Bowman

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National City	Dr. Theo. F. Johnson
Oceanside	Dr. R. S. Reid
San Diego	Dr. E. P. Chartres-Martin

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Dr. W. C. Hassler	San Francisco
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Lodi	Dr. S. W. Hopkins
Manteca	F. M. Roundtree
Stockton	Dr. Linwood Dozler
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Paso Robles	Wm. Ryan
San Luis Obispo	W. F. Cook

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Redwood City	Dr. J. E. Chapin
San Bruno	Dr. F. Holmes Smith
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So. San Francisco	Dr. J. C. McGovern

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Lompoc	Dr. C. B. Constable
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Santa Maria	Dr. O. P. Paulding

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Santa Cruz	Dr. A. N. Nittler
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Santa Clara	Dr. G. W. Fowler
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Redding	E. A. Rollison

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Benicia	Dr. P. B. Fry
Dixon	H. G. Grove
Fairfield	F. L. Morrill
Rio Vista	Geo. Adcock
Suisun	Dr. A. G. Bailey
Vacaville	W. F. Hughes
Vallejo	Dr. A. J. Klotz

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Healdsburg	Dr. J. W. Seawell
Petaluma	Dr. R. B. Duncan
Santa Rosa	Dr. Jackson Temple
Sebastopol	Dr. W. J. Kerr
Sonoma	J. H. Albertson

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Modesto	Dr. J. W. Morgan
Newman	Dr. H. V. Armistead
Oakdale	Dr. E. R. Clarke
Turlock	Dr. C. E. Pearson

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Yuba City	Dr. J. H. Barr

Tehama County—

Dr. E. E. Thompson	Red Bluff
Corning	Dr. Caroline Hewes
Red Bluff	Dr. F. J. Bailey
Tehama	Dr. J. H. Belyea

Trinity County—

Dr. C. A. Curl	Weaverville
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Tulare County—

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Dinuba	Dr. C. A. Tillotson
Exeter	Dr. W. R. Tyler
Lindsay	Dr. C. W. Locke
Porterville	Dr. O. C. Higgins
Tulare	Dr. J. B. Rosson
Visalia	Dr. A. W. Preston

Tuolumne County—

Dr. Wm. L. Hood	Sonora
Sonora	Dr. Wm. L. Hood

Ventura County—

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Fillmore	Dr. Will R. Manning
Oxnard	Dr. G. A. Broughton
Ventura	L. M. Wilson
Santa Paula	Dr. Geo. Carey

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Davis	Dr. W. E. Bates
Winters	C. M. Norton
Woodland	Alice G. Thomas

Yuba County—

Dr. J. H. Barr	Marysville
Marysville	Dr. A. L. Miller
Wheatland	W. H. Niemeyer

List of Diseases Reportable by Law

Anthrax	Ophthalmia Neonatorum
Beri-beri	Paratyphoid Fever
Cerebrospinal Meningitis	Pellagra
(Epidemic)	Plague
Chickenpox	Pneumonia (Lobar)
Cholera, Asiatic	Poliomyelitis
Dengue	Rabies
Diphtheria	Rocky Mountain Spotted
Dysentery	(or Tick) Fever
Erysipelas	Scarlet Fever
German Measles	Smallpox
Glanders	*Syphilis
*Gonococcus Infection	Tetanus
Hookworm	Trachoma
Influenza	Tuberculosis
Leprosy	Typhoid Fever
Lethargic Encephalitis	Typhus Fever
Malaria	Whooping Cough
Measles	Yellow Fever
Mumps	

*Reported by office number. Name and address not required.

Quarantinable Diseases

Cerebrospinal Meningitis	Poliomyelitis
(Epidemic)	Scarlet Fever
Cholera, Asiatic	Smallpox
Diphtheria	Typhus Fever
Leprosy	Yellow Fever
Plague	

Section 16, Public Health Act. All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious, or communicable disease, shall promptly report such fact to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known.

Is Your Community Fit?

HAVE you any definite information as to the prevalence of preventable diseases in your city? Without such information health officials can not direct their activities in a way that will yield the largest returns in disease prevention. All doctors must report such diseases as part of their responsibility to the community.—*Public Health Reports.*

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